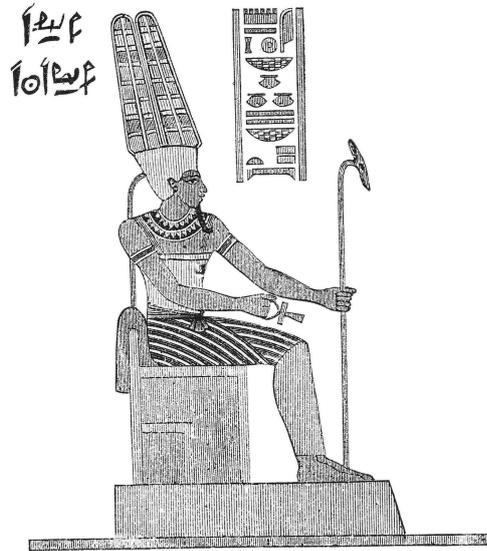


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THE NAUTICAL ALMANAC FOR THE SUN

2019

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DIP corrects for height of eye over the surface. This value has to be subtracted from the sextant altitude (H_s). The correction in degrees for height of eye in meters is given by the following formula:

$$d = 0.0293\sqrt{m}$$

This is the first correction (apart from index error) that has to be applied to the measured altitude.

The next correction is for refraction in the earth's atmosphere. As usual this table is correct for 10°C and a pressure of 1010hPa. This correction has to be applied to apparent altitude (H_a). The exact values can be calculated by the following formula.

$$R_0 = \cot\left(H_a + \frac{7.31}{H_a + 4.4}\right)$$

For other than standard conditions calculate a correction factor for R_0 by:

$$f = \frac{0.28P}{T + 273}$$

where P is the pressure in hectopascal and T is the temperature in °C.

Semidiameter has to be added for lower limb sights and subtracted for upper limb sights. The value for semidiameter is tabulated in the daily pages.

To correct your sextant altitude H_s do the following: Calculate H_a by

$$H_a = H_s + I - dip$$

Where I is the sextant's index error. Then calculate the observed altitude H_o by

$$H_o = H_a - R + P \pm SD$$

where R is refraction, P is parallax and SD is the semidiameter.

Sight reduction tables can be downloaded for the US government's internet pages. Search for HO-229 or HO-249. These values can also be calculated with the following, relatively simple, formulas

$$\sin H_c = \sin L \sin d + \cos L \cos d \cos LHA$$

and

$$\cos A = \frac{\sin d - \sin L \sin H_c}{\cos L \cos H_c}$$

where A is the azimuth angle, L is the latitude, d is the declination and LHA is the local hour angle. The azimuth (Z_n) is given by the following rule:

- if the LHA is greater than 180°, $Z_n = A$
- if the LHA is less than 180°, $Z_n = 360^\circ - A$

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	179°12.0	-23°02.3	0	178°51.0	-22°46.2	0	178°30.8	-22°25.9	0	178°11.7	-22°01.7	0	177°53.8	-21°33.6
1	194°11.7	-23°02.1	1	193°50.7	-22°45.9	1	193°30.5	-22°25.6	1	193°11.4	-22°01.3	1	192°53.6	-21°33.2
2	209°11.4	-23°01.9	2	208°50.4	-22°45.6	2	208°30.2	-22°25.3	2	208°11.2	-22°00.9	2	207°53.4	-21°32.7
3	224°11.1	-23°01.7	3	223°50.1	-22°45.4	3	223°30.0	-22°25.0	3	223°10.9	-22°00.6	3	222°53.1	-21°32.3
4	239°10.8	-23°01.5	4	238°49.8	-22°45.1	4	238°29.7	-22°24.7	4	238°10.6	-22°00.2	4	237°52.9	-21°31.9
5	254°10.5	-23°01.3	5	253°49.5	-22°44.9	5	253°29.4	-22°24.4	5	253°10.4	-21°59.8	5	252°52.7	-21°31.5
6	269°10.2	-23°01.1	6	268°49.2	-22°44.6	6	268°29.1	-22°24.0	6	268°10.1	-21°59.5	6	267°52.4	-21°31.1
7	284°09.9	-23°00.9	7	283°49.0	-22°44.4	7	283°28.9	-22°23.7	7	283°09.9	-21°59.1	7	282°52.2	-21°30.6
8	299°09.6	-23°00.7	8	298°48.7	-22°44.1	8	298°28.6	-22°23.4	8	298°09.6	-21°58.7	8	297°51.9	-21°30.2
9	314°09.3	-23°00.5	9	313°48.4	-22°43.8	9	313°28.3	-22°23.1	9	313°09.4	-21°58.4	9	312°51.7	-21°29.8
10	329°09.0	-23°00.3	10	328°48.1	-22°43.6	10	328°28.1	-22°22.8	10	328°09.1	-21°58.0	10	327°51.5	-21°29.4
11	344°08.7	-23°00.1	11	343°47.8	-22°43.3	11	343°27.8	-22°22.5	11	343°08.9	-21°57.6	11	342°51.2	-21°28.9
12	359°08.4	-22°59.9	12	358°47.5	-22°43.1	12	358°27.5	-22°22.1	12	358°08.6	-21°57.3	12	357°51.0	-21°28.5
13	14°08.2	-22°59.7	13	13°47.2	-22°42.8	13	13°27.2	-22°21.8	13	13°08.4	-21°56.9	13	12°50.8	-21°28.1
14	29°07.9	-22°59.5	14	28°47.0	-22°42.5	14	28°27.0	-22°21.5	14	28°08.1	-21°56.5	14	27°50.5	-21°27.7
15	44°07.6	-22°59.3	15	43°46.7	-22°42.3	15	43°26.7	-22°21.2	15	43°07.8	-21°56.1	15	42°50.3	-21°27.2
16	59°07.3	-22°59.1	16	58°46.4	-22°42.0	16	58°26.4	-22°20.9	16	58°07.6	-21°55.8	16	57°50.1	-21°26.8
17	74°07.0	-22°58.9	17	73°46.1	-22°41.7	17	73°26.2	-22°20.5	17	73°07.3	-21°55.4	17	72°49.8	-21°26.4
18	89°06.7	-22°58.7	18	88°45.8	-22°41.5	18	88°25.9	-22°20.2	18	88°07.1	-21°55.0	18	87°49.6	-21°26.0
19	104°06.4	-22°58.5	19	103°45.5	-22°41.2	19	103°25.6	-22°19.9	19	103°06.8	-21°54.6	19	102°49.4	-21°25.5
20	119°06.1	-22°58.3	20	118°45.3	-22°40.9	20	118°25.4	-22°19.6	20	118°06.6	-21°54.3	20	117°49.1	-21°25.1
21	134°05.8	-22°58.0	21	133°45.0	-22°40.7	21	133°25.1	-22°19.2	21	133°06.3	-21°53.9	21	132°48.9	-21°24.7
22	149°05.5	-22°57.8	22	148°44.7	-22°40.4	22	148°24.8	-22°18.9	22	148°06.1	-21°53.5	22	147°48.7	-21°24.2
23	164°05.2	-22°57.6	23	163°44.4	-22°40.1	23	163°24.5	-22°18.6	23	163°05.8	-21°53.1	23	162°48.4	-21°23.8
	SD.=16.3	d=0.2		SD.=16.3	d=0.3		SD.=16.3	d=0.3		SD.=16.3	d=0.4		SD.=16.3	d=0.4

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	179°04.9	-22°57.4	0	178°44.1	-22°39.9	0	178°24.3	-22°18.3	0	178°05.6	-21°52.7	0	177°48.2	-21°23.4
1	194°04.6	-22°57.2	1	193°43.8	-22°39.6	1	193°24.0	-22°17.9	1	193°05.3	-21°52.4	1	192°48.0	-21°22.9
2	209°04.3	-22°57.0	2	208°43.6	-22°39.3	2	208°23.7	-22°17.6	2	208°05.1	-21°52.0	2	207°47.7	-21°22.5
3	224°04.0	-22°56.7	3	223°43.3	-22°39.0	3	223°23.5	-22°17.3	3	223°04.8	-21°51.6	3	222°47.5	-21°22.1
4	239°03.7	-22°56.5	4	238°43.0	-22°38.8	4	238°23.2	-22°17.0	4	238°04.6	-21°51.2	4	237°47.3	-21°21.6
5	254°03.4	-22°56.3	5	253°42.7	-22°38.5	5	253°22.9	-22°16.6	5	253°04.3	-21°50.8	5	252°47.1	-21°21.2
6	269°03.1	-22°56.1	6	268°42.4	-22°38.2	6	268°22.7	-22°16.3	6	268°04.1	-21°50.4	6	267°46.8	-21°20.7
7	284°02.9	-22°55.9	7	283°42.1	-22°37.9	7	283°22.4	-22°16.0	7	283°03.8	-21°50.0	7	282°46.6	-21°20.3
8	299°02.6	-22°55.7	8	298°41.9	-22°37.7	8	298°22.1	-22°15.6	8	298°03.6	-21°49.7	8	297°46.4	-21°19.9
9	314°02.3	-22°55.4	9	313°41.6	-22°37.4	9	313°21.9	-22°15.3	9	313°03.3	-21°49.3	9	312°46.1	-21°19.4
10	329°02.0	-22°55.2	10	328°41.3	-22°37.1	10	328°21.6	-22°15.0	10	328°03.1	-21°48.9	10	327°45.9	-21°19.0
11	344°01.7	-22°55.0	11	343°41.0	-22°36.8	11	343°21.3	-22°14.6	11	343°02.8	-21°48.5	11	342°45.7	-21°18.5
12	359°01.4	-22°54.8	12	358°40.7	-22°36.5	12	358°21.1	-22°14.3	12	358°02.6	-21°48.1	12	357°45.5	-21°18.1
13	14°01.1	-22°54.5	13	13°40.5	-22°36.3	13	13°20.8	-22°13.9	13	13°02.3	-21°47.7	13	12°45.2	-21°17.7
14	29°00.8	-22°54.3	14	28°40.2	-22°36.0	14	28°20.5	-22°13.6	14	28°02.1	-21°47.3	14	27°45.0	-21°17.2
15	44°00.5	-22°54.1	15	43°39.9	-22°35.7	15	43°20.3	-22°13.3	15	43°01.8	-21°46.9	15	42°44.8	-21°16.8
16	59°00.2	-22°53.9	16	58°39.6	-22°35.4	16	58°20.0	-22°12.9	16	58°01.6	-21°46.5	16	57°44.5	-21°16.3
17	73°59.9	-22°53.6	17	73°39.3	-22°35.1	17	73°19.8	-22°12.6	17	73°01.3	-21°46.1	17	72°44.3	-21°15.9
18	88°59.6	-22°53.4	18	88°39.1	-22°34.8	18	88°19.5	-22°12.2	18	88°01.1	-21°45.7	18	87°44.1	-21°15.4
19	103°59.3	-22°53.2	19	103°38.8	-22°34.5	19	103°19.2	-22°11.9	19	103°00.9	-21°45.4	19	102°43.9	-21°15.0
20	118°59.1	-22°52.9	20	118°38.5	-22°34.3	20	118°19.0	-22°11.6	20	118°00.6	-21°45.0	20	117°43.6	-21°14.5
21	133°58.8	-22°52.7	21	133°38.2	-22°34.0	21	133°18.7	-22°11.2	21	133°00.4	-21°44.6	21	132°43.4	-21°14.1
22	148°58.5	-22°52.5	22	148°38.0	-22°33.7	22	148°18.4	-22°10.9	22	148°00.1	-21°44.2	22	147°43.2	-21°13.6
23	163°58.2	-22°52.2	23	163°37.7	-22°33.4	23	163°18.2	-22°10.5	23	162°59.9	-21°43.8	23	162°43.0	-21°13.2
	SD.=16.3	d=0.2		SD.=16.3	d=0.3		SD.=16.3	d=0.3		SD.=16.3	d=0.4		SD.=16.3	d=0.4

03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec	15	GHA	Dec
0	178°57.9	-22°52.0	0	178°37.4	-22°33.1	0	178°17.9	-22°10.2	0	177°59.6	-21°43.4	0	177°42.7	-21°12.7
1	193°57.6	-22°51.8	1	193°37.1	-22°32.8	1	193°17.6	-22°09.8	1	192°59.4	-21°43.0	1	192°42.5	-21°12.3
2	208°57.3	-22°51.5	2	208°36.8	-22°32.5	2	208°17.4	-22°09.5	2	207°59.1	-21°42.6	2	207°42.3	-21°11.8
3	223°57.0	-22°51.3	3	223°36.6	-22°32.2	3	223°17.1	-22°09.1	3	222°58.9	-21°42.2	3	222°42.1	-21°11.4
4	238°56.7	-22°51.1	4	238°36.3	-22°31.9	4	238°16.9	-22°08.8	4	237°58.7	-21°41.8	4	237°41.8	-21°10.9
5	253°56.4	-22°50.8	5	253°36.0	-22°31.6	5	253°16.6	-22°08.5	5	252°58.4	-21°41.4	5	252°41.6	-21°10.5
6	268°56.1	-22°50.6	6	268°35.7	-22°31.3	6	268°16.3	-22°08.1	6	267°58.2	-21°41.0	6	267°41.4	-21°10.0
7	283°55.9	-22°50.3	7	283°35.5	-22°31.0	7	283°16.1	-22°07.8	7	282°57.9	-21°40.6	7	282°41.2	-21°09.6
8	298°55.6	-22°50.1	8	298°35.2	-22°30.8	8	298°15.8	-22°07.4	8	297°57.7	-21°40.1	8	297°41.0	-21°09.1
9	313°55.3	-22°49.9	9	313°34.9	-22°30.5	9	313°15.6	-22°07.0	9	312°57.4	-21°39.7	9	312°40.7	-21°08.7
10	328°55.0	-22°49.6	10	328°34.6	-22°30.2	10	328°15.3	-22°06.7	10	327°57.2	-21°39.3	10	327°40.5	-21°08.2
11	343°54.7	-22°49.4	11	343°34.3	-22°29.9	11	343°15.0	-22°06.3	11	342°57.0	-21°38.9	11	342°40.3	-21°07.7
12	358°54.4	-22°49.1	12	358°34.1	-22°29.6	12	358°14.8	-22°06.0	12	357°56.7	-21°38.5	12	357°40.1	-21°07.3
13	13°54.1	-22°48.9	13	13°33.8	-22°29.3	13	13°14.5	-22°05.6	13	12°56.5	-21°38.1	13	12°39.8	-21°06.8
14	28°53.8	-22°48.6	14	28°33.5	-22°29.0	14	28°14.3	-22°05.3	14	27°56.2	-21°37.7	14	27°39.6	-21°06.4
15	43°53.5	-22°48.4	15	43°33.2	-22°28.7	15	43°14.0	-22°04.9	15	42°56.0	-21°37.3	15	42°39.4	-21°05.9
16	58°53.3	-22°48.2	16	58°33.0	-22°28.4	16	58°13.7	-22°04.6	16	57°55.8	-21°36.9	16	57°39.2	-21°05.4
17	73°53.0	-22°47.9	17	73°32.7	-22°28.1	17	73°13.5	-22°04.2	17	72°55.5	-21°36.5	17	72°39.0	-21°05.0
18	88°52.7	-22°47.7	18	88°32.4	-22°27.7	18	88°13.2	-22°03.8	18	87°55.3	-21°36.1	18	87°38.8	-21°04.5
19	103°52.4	-22°47.4	19	103°32.1	-22°27.4	19	103°13.0	-22°03.5	19	102°55.0	-21°35.6	19	102°38.5	-21°04.0
20	118°52.1	-22°47.2	20	118°31.9	-22°27.1	20	118°12.7	-22°03.1	20	117°54.8	-21°35.2	20	117°38.3	-21°03.6
21	133°51.8	-22°46.9	21	133°31.6	-22°26.8	21	133°12.4	-22°02.8	21	132°54.6	-21°34.8	21	132°38.1	-21°03.1
22	148°51.5	-22°46.7	22	148°31.3	-22°26.5	22	148°12.2	-22°02.4	22	147°54.3	-21°34.4	22	147°37.9	-21°02.7
23	163°51.2	-22°46.4	23	163°31.0	-22°26.2	23	163°11.9	-22°02.0	23	162°54.1	-21°34.0	23	162°37.7	

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	177°37.4	-21°01.7	0	177°22.6	-20°26.2	0	177°09.4	-19°47.3	0	176°58.0	-19°05.1	0	176°48.3	-18°19.7
1	192°37.2	-21°01.2	1	192°22.4	-20°25.7	1	192°09.3	-19°46.7	1	191°57.8	-19°04.5	1	191°48.1	-18°19.0
2	207°37.0	-21°00.8	2	207°22.2	-20°25.2	2	207°09.1	-19°46.2	2	206°57.7	-19°03.8	2	206°48.0	-18°18.4
3	222°36.8	-21°00.3	3	222°22.0	-20°24.7	3	222°08.9	-19°45.6	3	221°57.5	-19°03.2	3	221°47.9	-18°17.7
4	237°36.6	-20°59.8	4	237°21.8	-20°24.2	4	237°08.8	-19°45.0	4	236°57.4	-19°02.6	4	236°47.8	-18°17.0
5	252°36.4	-20°59.4	5	252°21.6	-20°23.7	5	252°08.6	-19°44.5	5	251°57.3	-19°02.0	5	251°47.7	-18°16.4
6	267°36.1	-20°58.9	6	267°21.5	-20°23.1	6	267°08.4	-19°43.9	6	266°57.1	-19°01.4	6	266°47.5	-18°15.7
7	282°35.9	-20°58.4	7	282°21.3	-20°22.6	7	282°08.3	-19°43.3	7	281°57.0	-19°00.8	7	281°47.4	-18°15.1
8	297°35.7	-20°58.0	8	297°21.1	-20°22.1	8	297°08.1	-19°42.8	8	296°56.8	-19°00.2	8	296°47.3	-18°14.4
9	312°35.5	-20°57.5	9	312°20.9	-20°21.6	9	312°07.9	-19°42.2	9	311°56.7	-18°59.6	9	311°47.2	-18°13.8
10	327°35.3	-20°57.0	10	327°20.7	-20°21.0	10	327°07.8	-19°41.6	10	326°56.5	-18°58.9	10	326°47.1	-18°13.1
11	342°35.1	-20°56.5	11	342°20.5	-20°20.5	11	342°07.6	-19°41.1	11	341°56.4	-18°58.3	11	341°46.9	-18°12.5
12	357°34.9	-20°56.1	12	357°20.3	-20°20.0	12	357°07.4	-19°40.5	12	356°56.2	-18°57.7	12	356°46.8	-18°11.8
13	12°34.6	-20°55.6	13	12°20.1	-20°19.5	13	12°07.2	-19°39.9	13	11°56.1	-18°57.1	13	11°46.7	-18°11.1
14	27°34.4	-20°55.1	14	27°19.9	-20°18.9	14	27°07.1	-19°39.4	14	26°56.0	-18°56.5	14	26°46.6	-18°10.5
15	42°34.2	-20°54.6	15	42°19.7	-20°18.4	15	42°06.9	-19°38.8	15	41°55.8	-18°55.9	15	41°46.5	-18°09.8
16	57°34.0	-20°54.1	16	57°19.5	-20°17.9	16	57°06.8	-19°38.2	16	56°55.7	-18°55.2	16	56°46.3	-18°09.2
17	72°33.8	-20°53.7	17	72°19.4	-20°17.4	17	72°06.6	-19°37.6	17	71°55.5	-18°54.6	17	71°46.2	-18°08.5
18	87°33.6	-20°53.2	18	87°19.2	-20°16.8	18	87°06.4	-19°37.1	18	86°55.4	-18°54.0	18	86°46.1	-18°07.8
19	102°33.4	-20°52.7	19	102°19.0	-20°16.3	19	102°06.3	-19°36.5	19	101°55.2	-18°53.4	19	101°46.0	-18°07.2
20	117°33.2	-20°52.2	20	117°18.8	-20°15.8	20	117°06.1	-19°35.9	20	116°55.1	-18°52.8	20	116°45.9	-18°06.5
21	132°33.0	-20°51.7	21	132°18.6	-20°15.2	21	132°05.9	-19°35.3	21	131°55.0	-18°52.1	21	131°45.8	-18°05.8
22	147°32.7	-20°51.3	22	147°18.4	-20°14.7	22	147°05.8	-19°34.7	22	146°54.8	-18°51.5	22	146°45.6	-18°05.2
23	162°32.5	-20°50.8	23	162°18.2	-20°14.2	23	162°05.6	-19°34.2	23	161°54.7	-18°50.9	23	161°45.5	-18°04.5
	SD.=16.3	d=0.5		SD.=16.3	d=0.5		SD.=16.3	d=0.6		SD.=16.2	d=0.6		SD.=16.2	d=0.7
17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	177°32.3	-20°50.3	0	177°18.0	-20°13.6	0	177°05.4	-19°33.6	0	176°54.5	-18°50.3	0	176°45.4	-18°03.9
1	192°32.1	-20°49.8	1	192°17.9	-20°13.1	1	192°05.3	-19°33.0	1	191°54.4	-18°49.6	1	191°45.3	-18°03.2
2	207°31.9	-20°49.3	2	207°17.7	-20°12.6	2	207°05.1	-19°32.4	2	206°54.3	-18°49.0	2	206°45.2	-18°02.5
3	222°31.7	-20°48.8	3	222°17.5	-20°12.0	3	222°04.9	-19°31.8	3	221°54.1	-18°48.4	3	221°45.1	-18°01.9
4	237°31.5	-20°48.3	4	237°17.3	-20°11.5	4	237°04.8	-19°31.3	4	236°54.0	-18°47.8	4	236°45.0	-18°01.2
5	252°31.3	-20°47.9	5	252°17.1	-20°11.0	5	252°04.6	-19°30.7	5	251°53.9	-18°47.1	5	251°44.8	-18°00.5
6	267°31.1	-20°47.4	6	267°16.9	-20°10.4	6	267°04.5	-19°30.1	6	266°53.7	-18°46.5	6	266°44.7	-17°59.8
7	282°30.9	-20°46.9	7	282°16.7	-20°09.9	7	282°04.3	-19°29.5	7	281°53.6	-18°45.9	7	281°44.6	-17°59.2
8	297°30.7	-20°46.4	8	297°16.6	-20°09.4	8	297°04.1	-19°28.9	8	296°53.4	-18°45.3	8	296°44.5	-17°58.5
9	312°30.4	-20°45.9	9	312°16.4	-20°08.8	9	312°04.0	-19°28.3	9	311°53.3	-18°44.6	9	311°44.4	-17°57.8
10	327°30.2	-20°45.4	10	327°16.2	-20°08.3	10	327°03.8	-19°27.8	10	326°53.2	-18°44.0	10	326°44.3	-17°57.2
11	342°30.0	-20°44.9	11	342°16.0	-20°07.7	11	342°03.7	-19°27.2	11	341°53.0	-18°43.4	11	341°44.2	-17°56.5
12	357°29.8	-20°44.4	12	357°15.8	-20°07.2	12	357°03.5	-19°26.6	12	356°52.9	-18°42.7	12	356°44.1	-17°55.8
13	12°29.6	-20°43.9	13	12°15.6	-20°06.7	13	12°03.3	-19°26.0	13	11°52.8	-18°42.1	13	11°44.0	-17°55.2
14	27°29.4	-20°43.4	14	27°15.5	-20°06.1	14	27°03.2	-19°25.4	14	26°52.6	-18°41.5	14	26°43.8	-17°54.5
15	42°29.2	-20°42.9	15	42°15.3	-20°05.6	15	42°03.0	-19°24.8	15	41°52.5	-18°40.9	15	41°43.7	-17°53.8
16	57°29.0	-20°42.4	16	57°15.1	-20°05.0	16	57°02.9	-19°24.2	16	56°52.4	-18°40.2	16	56°43.6	-17°53.1
17	72°28.8	-20°42.0	17	72°14.9	-20°04.5	17	72°02.7	-19°23.6	17	71°52.2	-18°39.6	17	71°43.5	-17°52.5
18	87°28.6	-20°41.5	18	87°14.7	-20°03.9	18	87°02.6	-19°23.1	18	86°52.1	-18°39.0	18	86°43.4	-17°51.8
19	102°28.4	-20°41.0	19	102°14.5	-20°03.4	19	102°02.4	-19°22.5	19	101°52.0	-18°38.3	19	101°43.3	-17°51.1
20	117°28.2	-20°40.5	20	117°14.4	-20°02.9	20	117°02.2	-19°21.9	20	116°51.8	-18°37.7	20	116°43.2	-17°50.4
21	132°28.0	-20°40.0	21	132°14.2	-20°02.3	21	132°02.1	-19°21.3	21	131°51.7	-18°37.0	21	131°43.1	-17°49.8
22	147°27.8	-20°39.5	22	147°14.0	-20°01.8	22	147°01.9	-19°20.7	22	146°51.6	-18°36.4	22	146°43.0	-17°49.1
23	162°27.6	-20°39.0	23	162°13.8	-20°01.2	23	162°01.8	-19°20.1	23	161°51.4	-18°35.8	23	161°42.9	-17°48.4
	SD.=16.3	d=0.5		SD.=16.3	d=0.5		SD.=16.3	d=0.6		SD.=16.2	d=0.6		SD.=16.2	d=0.7
18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec	30	GHA	Dec
0	177°27.4	-20°38.5	0	177°13.6	-20°00.7	0	177°01.6	-19°19.5	0	176°51.3	-18°35.1	0	176°42.8	-17°47.7
1	192°27.2	-20°38.0	1	192°13.5	-20°00.1	1	192°01.5	-19°18.9	1	191°51.2	-18°34.5	1	191°42.7	-17°47.0
2	207°27.0	-20°37.5	2	207°13.3	-19°59.6	2	207°01.3	-19°18.3	2	206°51.0	-18°33.9	2	206°42.6	-17°46.4
3	222°26.8	-20°37.0	3	222°13.1	-19°59.0	3	222°01.1	-19°17.7	3	221°50.9	-18°33.2	3	221°42.4	-17°45.7
4	237°26.6	-20°36.5	4	237°12.9	-19°58.5	4	237°01.0	-19°17.1	4	236°50.8	-18°32.6	4	236°42.3	-17°45.0
5	252°26.4	-20°36.0	5	252°12.8	-19°57.9	5	252°00.8	-19°16.5	5	251°50.7	-18°31.9	5	251°42.2	-17°44.3
6	267°26.2	-20°35.4	6	267°12.6	-19°57.4	6	267°00.7	-19°15.9	6	266°50.5	-18°31.3	6	266°42.1	-17°43.6
7	282°26.0	-20°34.9	7	282°12.4	-19°56.8	7	282°00.5	-19°15.3	7	281°50.4	-18°30.7	7	281°42.0	-17°43.0
8	297°25.8	-20°34.4	8	297°12.2	-19°56.3	8	297°00.4	-19°14.7	8	296°50.3	-18°30.0	8	296°41.9	-17°42.3
9	312°25.6	-20°33.9	9	312°12.1	-19°55.7	9	312°00.2	-19°14.1	9	311°50.1	-18°29.4	9	311°41.8	-17°41.6
10	327°25.4	-20°33.4	10	327°11.9	-19°55.1	10	327°00.1	-19°13.5	10	326°50.0	-18°28.7	10	326°41.7	-17°40.9
11	342°25.2	-20°32.9	11	342°11.7	-19°54.6	11	341°59.9	-19°12.9	11	341°49.9	-18°28.1	11	341°41.6	-17°40.2
12	357°25.0	-20°32.4	12	357°11.5	-19°54.0	12	356°59.8	-19°12.3	12	356°49.8	-18°27.4	12	356°41.5	-17°39.5
13	12°24.8	-20°31.9	13	12°11.3	-19°53.5	13	11°59.6	-19°11.7	13	11°49.6	-18°26.8	13	11°41.4	-17°38.8
14	27°24.6	-20°31.4	14	27°11.2	-19°52.9	14	26°59.5	-19°11.1	14	26°49.5	-18°26.1	14	26°41.3	-17°38.2
15	42°24.4	-20°30.9	15	42°11.0	-19°52.4	15	41°59.3	-19°10.5	15	41°49.4	-18°25.5	15	41°41.2	-17°37.5
16	57°24.2	-20°30.4	16	57°10.8</										

31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	176°40.3	-17°31.3	0	176°34.2	-16°40.1	0	176°29.8	-15°46.3	0	176°27.3	-14°50.0	0	176°26.6	-13°51.5
1	191°40.2	-17°30.6	1	191°34.1	-16°39.3	1	191°29.8	-15°45.5	1	191°27.3	-14°49.2	1	191°26.6	-13°50.7
2	206°40.1	-17°29.9	2	206°34.0	-16°38.6	2	206°29.7	-15°44.7	2	206°27.3	-14°48.4	2	206°26.6	-13°49.9
3	221°40.0	-17°29.2	3	221°33.9	-16°37.9	3	221°29.7	-15°44.0	3	221°27.3	-14°47.6	3	221°26.6	-13°49.0
4	236°39.9	-17°28.5	4	236°33.9	-16°37.2	4	236°29.6	-15°43.2	4	236°27.2	-14°46.8	4	236°26.6	-13°48.2
5	251°39.8	-17°27.8	5	251°33.8	-16°36.4	5	251°29.6	-15°42.4	5	251°27.2	-14°46.0	5	251°26.6	-13°47.4
6	266°39.7	-17°27.1	6	266°33.7	-16°35.7	6	266°29.6	-15°41.7	6	266°27.2	-14°45.2	6	266°26.6	-13°46.5
7	281°39.6	-17°26.4	7	281°33.7	-16°35.0	7	281°29.5	-15°40.9	7	281°27.2	-14°44.4	7	281°26.6	-13°45.7
8	296°39.5	-17°25.7	8	296°33.6	-16°34.2	8	296°29.5	-15°40.1	8	296°27.2	-14°43.6	8	296°26.6	-13°44.9
9	311°39.4	-17°25.0	9	311°33.5	-16°33.5	9	311°29.4	-15°39.4	9	311°27.1	-14°42.8	9	311°26.6	-13°44.1
10	326°39.3	-17°24.3	10	326°33.5	-16°32.8	10	326°29.4	-15°38.6	10	326°27.1	-14°42.0	10	326°26.7	-13°43.2
11	341°39.3	-17°23.6	11	341°33.4	-16°32.0	11	341°29.3	-15°37.8	11	341°27.1	-14°41.2	11	341°26.7	-13°42.4
12	356°39.2	-17°22.9	12	356°33.3	-16°31.3	12	356°29.3	-15°37.0	12	356°27.1	-14°40.4	12	356°26.7	-13°41.6
13	11°39.1	-17°22.2	13	11°33.2	-16°30.5	13	11°29.2	-15°36.3	13	11°27.1	-14°39.6	13	11°26.7	-13°40.7
14	26°39.0	-17°21.5	14	26°33.2	-16°29.8	14	26°29.2	-15°35.5	14	26°27.0	-14°38.8	14	26°26.7	-13°39.9
15	41°38.9	-17°20.8	15	41°33.1	-16°29.1	15	41°29.2	-15°34.7	15	41°27.0	-14°38.0	15	41°26.7	-13°39.1
16	56°38.8	-17°20.1	16	56°33.0	-16°28.3	16	56°29.1	-15°34.0	16	56°27.0	-14°37.2	16	56°26.7	-13°38.2
17	71°38.7	-17°19.4	17	71°33.0	-16°27.6	17	71°29.1	-15°33.2	17	71°27.0	-14°36.4	17	71°26.7	-13°37.4
18	86°38.6	-17°18.7	18	86°32.9	-16°26.9	18	86°29.0	-15°32.4	18	86°27.0	-14°35.6	18	86°26.7	-13°36.6
19	101°38.5	-17°18.0	19	101°32.8	-16°26.1	19	101°29.0	-15°31.6	19	101°27.0	-14°34.8	19	101°26.7	-13°35.7
20	116°38.4	-17°17.3	20	116°32.8	-16°25.4	20	116°29.0	-15°30.9	20	116°26.9	-14°34.0	20	116°26.7	-13°34.9
21	131°38.3	-17°16.6	21	131°32.7	-16°24.6	21	131°28.9	-15°30.1	21	131°26.9	-14°33.2	21	131°26.7	-13°34.1
22	146°38.2	-17°15.9	22	146°32.6	-16°23.9	22	146°28.9	-15°29.3	22	146°26.9	-14°32.4	22	146°26.7	-13°33.2
23	161°38.1	-17°15.2	23	161°32.6	-16°23.2	23	161°28.8	-15°28.5	23	161°26.9	-14°31.6	23	161°26.8	-13°32.4
	SD.=16.2	d=0.7		SD.=16.2	d=0.7		SD.=16.2	d=0.8		SD.=16.2	d=0.8		SD.=16.2	d=0.8

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	176°38.1	-17°14.5	0	176°32.5	-16°22.4	0	176°28.8	-15°27.8	0	176°26.9	-14°30.7	0	176°26.8	-13°31.5
1	191°38.0	-17°13.8	1	191°32.5	-16°21.7	1	191°28.8	-15°27.0	1	191°26.9	-14°29.9	1	191°26.8	-13°30.7
2	206°37.9	-17°13.1	2	206°32.4	-16°20.9	2	206°28.7	-15°26.2	2	206°26.9	-14°29.1	2	206°26.8	-13°29.9
3	221°37.8	-17°12.4	3	221°32.3	-16°20.2	3	221°28.7	-15°25.4	3	221°26.8	-14°28.3	3	221°26.8	-13°29.0
4	236°37.7	-17°11.7	4	236°32.3	-16°19.4	4	236°28.6	-15°24.7	4	236°26.8	-14°27.5	4	236°26.8	-13°28.2
5	251°37.6	-17°11.0	5	251°32.2	-16°18.7	5	251°28.6	-15°23.9	5	251°26.8	-14°26.7	5	251°26.8	-13°27.4
6	266°37.5	-17°10.3	6	266°32.1	-16°18.0	6	266°28.6	-15°23.1	6	266°26.8	-14°25.9	6	266°26.8	-13°26.5
7	281°37.4	-17°09.6	7	281°32.1	-16°17.2	7	281°28.5	-15°22.3	7	281°26.8	-14°25.1	7	281°26.8	-13°25.7
8	296°37.4	-17°08.9	8	296°32.0	-16°16.5	8	296°28.5	-15°21.5	8	296°26.8	-14°24.3	8	296°26.9	-13°24.8
9	311°37.3	-17°08.1	9	311°32.0	-16°15.7	9	311°28.5	-15°20.8	9	311°26.8	-14°23.5	9	311°26.9	-13°24.0
10	326°37.2	-17°07.4	10	326°31.9	-16°15.0	10	326°28.4	-15°20.0	10	326°26.8	-14°22.7	10	326°26.9	-13°23.2
11	341°37.1	-17°06.7	11	341°31.8	-16°14.2	11	341°28.4	-15°19.2	11	341°26.8	-14°21.8	11	341°26.9	-13°22.3
12	356°37.0	-17°06.0	12	356°31.8	-16°13.5	12	356°28.4	-15°18.4	12	356°26.7	-14°21.0	12	356°26.9	-13°21.5
13	11°36.9	-17°05.3	13	11°31.7	-16°12.7	13	11°28.3	-15°17.6	13	11°26.7	-14°20.2	13	11°26.9	-13°20.6
14	26°36.8	-17°04.6	14	26°31.7	-16°12.0	14	26°28.3	-15°16.9	14	26°26.7	-14°19.4	14	26°26.9	-13°19.8
15	41°36.8	-17°03.9	15	41°31.6	-16°11.2	15	41°28.2	-15°16.1	15	41°26.7	-14°18.6	15	41°27.0	-13°19.0
16	56°36.7	-17°03.2	16	56°31.5	-16°10.5	16	56°28.2	-15°15.3	16	56°26.7	-14°17.8	16	56°27.0	-13°18.1
17	71°36.6	-17°02.4	17	71°31.5	-16°09.7	17	71°28.2	-15°14.5	17	71°26.7	-14°17.0	17	71°27.0	-13°17.3
18	86°36.5	-17°01.7	18	86°31.4	-16°09.0	18	86°28.1	-15°13.7	18	86°26.7	-14°16.1	18	86°27.0	-13°16.4
19	101°36.4	-17°01.0	19	101°31.4	-16°08.2	19	101°28.1	-15°12.9	19	101°26.7	-14°15.3	19	101°27.0	-13°15.6
20	116°36.3	-17°00.3	20	116°31.3	-16°07.5	20	116°28.1	-15°12.2	20	116°26.7	-14°14.5	20	116°27.0	-13°14.7
21	131°36.3	-16°59.6	21	131°31.2	-16°06.7	21	131°28.1	-15°11.4	21	131°26.7	-14°13.7	21	131°27.1	-13°13.9
22	146°36.2	-16°58.9	22	146°31.2	-16°06.0	22	146°28.0	-15°10.6	22	146°26.7	-14°12.9	22	146°27.1	-13°13.1
23	161°36.1	-16°58.2	23	161°31.1	-16°05.2	23	161°28.0	-15°09.8	23	161°26.7	-14°12.1	23	161°27.1	-13°12.2
	SD.=16.2	d=0.7		SD.=16.2	d=0.7		SD.=16.2	d=0.8		SD.=16.2	d=0.8		SD.=16.2	d=0.8

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	176°36.0	-16°57.4	0	176°31.1	-16°04.5	0	176°28.0	-15°09.0	0	176°26.7	-14°11.2	0	176°27.1	-13°11.4
1	191°35.9	-16°56.7	1	191°31.0	-16°03.7	1	191°27.9	-15°08.2	1	191°26.6	-14°10.4	1	191°27.1	-13°10.5
2	206°35.8	-16°56.0	2	206°31.0	-16°03.0	2	206°27.9	-15°07.4	2	206°26.6	-14°09.6	2	206°27.2	-13°09.7
3	221°35.8	-16°55.3	3	221°30.9	-16°02.2	3	221°27.9	-15°06.7	3	221°26.6	-14°08.8	3	221°27.2	-13°08.8
4	236°35.7	-16°54.6	4	236°30.9	-16°01.5	4	236°27.8	-15°05.9	4	236°26.6	-14°08.0	4	236°27.2	-13°08.0
5	251°35.6	-16°53.8	5	251°30.8	-16°00.7	5	251°27.8	-15°05.1	5	251°26.6	-14°07.2	5	251°27.2	-13°07.1
6	266°35.5	-16°53.1	6	266°30.7	-15°59.9	6	266°27.8	-15°04.3	6	266°26.6	-14°06.3	6	266°27.2	-13°06.3
7	281°35.5	-16°52.4	7	281°30.7	-15°59.2	7	281°27.8	-15°03.5	7	281°26.6	-14°05.5	7	281°27.3	-13°05.4
8	296°35.4	-16°51.7	8	296°30.6	-15°58.4	8	296°27.7	-15°02.7	8	296°26.6	-14°04.7	8	296°27.3	-13°04.6
9	311°35.3	-16°51.0	9	311°30.6	-15°57.7	9	311°27.7	-15°01.9	9	311°26.6	-14°03.9	9	311°27.3	-13°03.7
10	326°35.2	-16°50.2	10	326°30.5	-15°56.9	10	326°27.7	-15°01.1	10	326°26.6	-14°03.1	10	326°27.3	-13°02.9
11	341°35.1	-16°49.5	11	341°30.5	-15°56.2	11	341°27.6	-15°00.3	11	341°26.6	-14°02.2	11	341°27.3	-13°02.0
12	356°35.1	-16°48.8	12	356°30.4	-15°55.4	12	356°27.6	-14°59.5	12	356°26.6	-14°01.4	12	356°27.4	-13°01.2
13	11°35.0	-16°48.1	13	11°30.4	-15°54.6	13	11°27.6	-14°58.7	13	11°26.6	-14°00.6	13	11°27.4	-13°00.3
14	26°34.9	-16°47.3	14	26°30.3	-15°53.9	14	26°27.6	-14°58.0	14	26°26.6	-13°59.8	14	26°27.4	-12°59.5
15	41°34.8	-16°46.6	15	41°30.3	-15°53.1	15	41°27.5	-14°57.2	15	41°26.6	-13°58.9	15	41°27.4	-12°58.6
16	56°34.8	-16°45.9	16	56°30.2	-15°52.4	16	56°27.5	-14°56.4	16	56°26.6	-13°58.1	16	56°27.5	-12°57.8
17	71°34.7	-16°45.2	17	71°30.2	-15°51.6	17	71°27.5	-14°55.6	17	71°26.6	-13°57.3	17	71°27.5	-12°56.9
18	86°34.6	-16°44.4	18	86°30.1	-15°50.8	18	86°27.5	-14°54.8	18	86°26.6	-13°56.5	18	86°27.5	-12°56.1
19	101°34.5	-16°43.7	19	101°30.1	-15°50.1	19	101°27.4	-14°54.0	19	101°26.6	-13°55.6	19	101°27.5	-12°55.2
20	116°34.5	-16°43.0	20	116°30.0	-15°49.3	20	116°27.4	-14°53.2	20	116°26.6	-13°54.8	20	116°27.5	-12°54.4
21	131°34.4	-16°42.3	21	131°30.0	-15°48.5	21	131°27.4	-14°52.4	21	131°26.6	-13°54.0	21	131°27.6	-12°53.5
22	146°34.3	-16°41.5	22	146°29.9	-15°47.8	22	146°27.4	-14°51.6	22	146°26.6	-13°53.2	22	146°27.6	-12°52.7
23	161°34.2	-16°40.8	23	161°29.9	-15°47.0	23	161°27.3	-14°50.8	23	161°26.6	-13°52.3	23	161°27.6	

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	176°27.7	-12°51.0	0	176°30.4	-11°48.6	0	176°34.7	-10°44.5	0	176°40.4	-9°38.9	0	176°47.5	-8°32.0
1	191°27.7	-12°50.1	1	191°30.4	-11°47.7	1	191°34.7	-10°43.6	1	191°40.5	-9°38.0	1	191°47.6	-8°31.1
2	206°27.7	-12°49.3	2	206°30.5	-11°46.8	2	206°34.8	-10°42.7	2	206°40.6	-9°37.1	2	206°47.7	-8°30.1
3	221°27.7	-12°48.4	3	221°30.5	-11°45.9	3	221°34.9	-10°41.8	3	221°40.7	-9°36.1	3	221°47.8	-8°29.2
4	236°27.8	-12°47.5	4	236°30.6	-11°45.0	4	236°35.0	-10°40.9	4	236°40.8	-9°35.2	4	236°47.9	-8°28.3
5	251°27.8	-12°46.7	5	251°30.6	-11°44.2	5	251°35.0	-10°40.0	5	251°40.9	-9°34.3	5	251°48.0	-8°27.3
6	266°27.8	-12°45.8	6	266°30.7	-11°43.3	6	266°35.1	-10°39.1	6	266°40.9	-9°33.4	6	266°48.1	-8°26.4
7	281°27.8	-12°45.0	7	281°30.7	-11°42.4	7	281°35.2	-10°38.2	7	281°41.0	-9°32.5	7	281°48.2	-8°25.4
8	296°27.9	-12°44.1	8	296°30.8	-11°41.5	8	296°35.2	-10°37.3	8	296°41.1	-9°31.5	8	296°48.3	-8°24.5
9	311°27.9	-12°43.3	9	311°30.8	-11°40.6	9	311°35.3	-10°36.4	9	311°41.2	-9°30.6	9	311°48.4	-8°23.6
10	326°27.9	-12°42.4	10	326°30.9	-11°39.8	10	326°35.4	-10°35.5	10	326°41.3	-9°29.7	10	326°48.5	-8°22.6
11	341°28.0	-12°41.5	11	341°30.9	-11°38.9	11	341°35.5	-10°34.6	11	341°41.4	-9°28.8	11	341°48.7	-8°21.7
12	356°28.0	-12°40.7	12	356°31.0	-11°38.0	12	356°35.5	-10°33.7	12	356°41.5	-9°27.8	12	356°48.8	-8°20.7
13	11°28.0	-12°39.8	13	11°31.0	-11°37.1	13	11°35.6	-10°32.8	13	11°41.6	-9°26.9	13	11°48.9	-8°19.8
14	26°28.1	-12°39.0	14	26°31.1	-11°36.2	14	26°35.7	-10°31.8	14	26°41.7	-9°26.0	14	26°49.0	-8°18.9
15	41°28.1	-12°38.1	15	41°31.1	-11°35.3	15	41°35.7	-10°30.9	15	41°41.8	-9°25.1	15	41°49.1	-8°17.9
16	56°28.1	-12°37.3	16	56°31.2	-11°34.5	16	56°35.8	-10°30.0	16	56°41.9	-9°24.2	16	56°49.2	-8°17.0
17	71°28.1	-12°36.4	17	71°31.3	-11°33.6	17	71°35.9	-10°29.1	17	71°42.0	-9°23.2	17	71°49.3	-8°16.0
18	86°28.2	-12°35.5	18	86°31.3	-11°32.7	18	86°36.0	-10°28.2	18	86°42.1	-9°22.3	18	86°49.4	-8°15.1
19	101°28.2	-12°34.7	19	101°31.4	-11°31.8	19	101°36.0	-10°27.3	19	101°42.1	-9°21.4	19	101°49.5	-8°14.2
20	116°28.2	-12°33.8	20	116°31.4	-11°30.9	20	116°36.1	-10°26.4	20	116°42.2	-9°20.5	20	116°49.6	-8°13.2
21	131°28.3	-12°32.9	21	131°31.5	-11°30.0	21	131°36.2	-10°25.5	21	131°42.3	-9°19.5	21	131°49.8	-8°12.3
22	146°28.3	-12°32.1	22	146°31.5	-11°29.2	22	146°36.3	-10°24.6	22	146°42.4	-9°18.6	22	146°49.9	-8°11.3
23	161°28.3	-12°31.2	23	161°31.6	-11°28.3	23	161°36.4	-10°23.7	23	161°42.5	-9°17.7	23	161°50.0	-8°10.4
	SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	176°28.4	-12°30.4	0	176°31.6	-11°27.4	0	176°36.4	-10°22.8	0	176°42.6	-9°16.7	0	176°50.1	-8°09.4
1	191°28.4	-12°29.5	1	191°31.7	-11°26.5	1	191°36.5	-10°21.9	1	191°42.7	-9°15.8	1	191°50.2	-8°08.5
2	206°28.4	-12°28.6	2	206°31.8	-11°25.6	2	206°36.6	-10°21.0	2	206°42.8	-9°14.9	2	206°50.3	-8°07.6
3	221°28.5	-12°27.8	3	221°31.8	-11°24.7	3	221°36.7	-10°20.1	3	221°42.9	-9°14.0	3	221°50.4	-8°06.6
4	236°28.5	-12°26.9	4	236°31.9	-11°23.8	4	236°36.7	-10°19.2	4	236°43.0	-9°13.0	4	236°50.5	-8°05.7
5	251°28.6	-12°26.0	5	251°31.9	-11°22.9	5	251°36.8	-10°18.2	5	251°43.1	-9°12.1	5	251°50.7	-8°04.7
6	266°28.6	-12°25.2	6	266°32.0	-11°22.1	6	266°36.9	-10°17.3	6	266°43.2	-9°11.2	6	266°50.8	-8°03.8
7	281°28.6	-12°24.3	7	281°32.0	-11°21.2	7	281°37.0	-10°16.4	7	281°43.3	-9°10.3	7	281°50.9	-8°02.8
8	296°28.7	-12°23.5	8	296°32.1	-11°20.3	8	296°37.0	-10°15.5	8	296°43.4	-9°09.3	8	296°51.0	-8°01.9
9	311°28.7	-12°22.6	9	311°32.2	-11°19.4	9	311°37.1	-10°14.6	9	311°43.5	-9°08.4	9	311°51.1	-8°01.0
10	326°28.7	-12°21.7	10	326°32.2	-11°18.5	10	326°37.2	-10°13.7	10	326°43.6	-9°07.5	10	326°51.2	-8°00.0
11	341°28.8	-12°20.9	11	341°32.3	-11°17.6	11	341°37.3	-10°12.8	11	341°43.7	-9°06.5	11	341°51.3	-7°59.1
12	356°28.8	-12°20.0	12	356°32.3	-11°16.7	12	356°37.4	-10°11.9	12	356°43.8	-9°05.6	12	356°51.4	-7°58.1
13	11°28.8	-12°19.1	13	11°32.4	-11°15.8	13	11°37.4	-10°11.0	13	11°43.9	-9°04.7	13	11°51.6	-7°57.2
14	26°28.9	-12°18.3	14	26°32.5	-11°14.9	14	26°37.5	-10°10.1	14	26°44.0	-9°03.8	14	26°51.7	-7°56.2
15	41°28.9	-12°17.4	15	41°32.5	-11°14.1	15	41°37.6	-10°09.1	15	41°44.1	-9°02.8	15	41°51.8	-7°55.3
16	56°29.0	-12°16.5	16	56°32.6	-11°13.2	16	56°37.7	-10°08.2	16	56°44.2	-9°01.9	16	56°51.9	-7°54.3
17	71°29.0	-12°15.6	17	71°32.6	-11°12.3	17	71°37.8	-10°07.3	17	71°44.3	-9°01.0	17	71°52.0	-7°53.4
18	86°29.0	-12°14.8	18	86°32.7	-11°11.4	18	86°37.8	-10°06.4	18	86°44.4	-9°00.0	18	86°52.1	-7°52.4
19	101°29.1	-12°13.9	19	101°32.8	-11°10.5	19	101°37.9	-10°05.5	19	101°44.5	-8°59.1	19	101°52.3	-7°51.5
20	116°29.1	-12°13.0	20	116°32.8	-11°09.6	20	116°38.0	-10°04.6	20	116°44.6	-8°58.2	20	116°52.4	-7°50.5
21	131°29.2	-12°12.2	21	131°32.9	-11°08.7	21	131°38.1	-10°03.7	21	131°44.7	-8°57.2	21	131°52.5	-7°49.6
22	146°29.2	-12°11.3	22	146°32.9	-11°07.8	22	146°38.2	-10°02.8	22	146°44.8	-8°56.3	22	146°52.6	-7°48.7
23	161°29.2	-12°10.4	23	161°33.0	-11°06.9	23	161°38.3	-10°01.8	23	161°44.9	-8°55.4	23	161°52.7	-7°47.7
	SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.1	d=0.9

17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	01	GHA	Dec
0	176°29.3	-12°09.6	0	176°33.1	-11°06.0	0	176°38.3	-10°00.9	0	176°45.0	-8°54.4	0	176°52.8	-7°46.8
1	191°29.3	-12°08.7	1	191°33.1	-11°05.1	1	191°38.4	-10°00.0	1	191°45.1	-8°53.5	1	191°53.0	-7°45.8
2	206°29.4	-12°07.8	2	206°33.2	-11°04.2	2	206°38.5	-9°59.1	2	206°45.2	-8°52.6	2	206°53.1	-7°44.9
3	221°29.4	-12°06.9	3	221°33.3	-11°03.3	3	221°38.6	-9°58.2	3	221°45.3	-8°51.6	3	221°53.2	-7°43.9
4	236°29.5	-12°06.1	4	236°33.3	-11°02.4	4	236°38.7	-9°57.3	4	236°45.4	-8°50.7	4	236°53.3	-7°43.0
5	251°29.5	-12°05.2	5	251°33.4	-11°01.5	5	251°38.8	-9°56.4	5	251°45.5	-8°49.8	5	251°53.4	-7°42.0
6	266°29.5	-12°04.3	6	266°33.5	-11°00.7	6	266°38.8	-9°55.4	6	266°45.6	-8°48.8	6	266°53.5	-7°41.1
7	281°29.6	-12°03.5	7	281°33.5	-10°59.8	7	281°38.9	-9°54.5	7	281°45.7	-8°47.9	7	281°53.7	-7°40.1
8	296°29.6	-12°02.6	8	296°33.6	-10°58.9	8	296°39.0	-9°53.6	8	296°45.8	-8°47.0	8	296°53.8	-7°39.2
9	311°29.7	-12°01.7	9	311°33.7	-10°58.0	9	311°39.1	-9°52.7	9	311°45.9	-8°46.0	9	311°53.9	-7°38.2
10	326°29.7	-12°00.8	10	326°33.7	-10°57.1	10	326°39.2	-9°51.8	10	326°46.0	-8°45.1	10	326°54.0	-7°37.3
11	341°29.8	-11°60.0	11	341°33.8	-10°56.2	11	341°39.3	-9°50.9	11	341°46.1	-8°44.2	11	341°54.1	-7°36.3
12	356°29.8	-11°59.1	12	356°33.8	-10°55.3	12	356°39.4	-9°49.9	12	356°46.2	-8°43.2	12	356°54.3	-7°35.4
13	11°29.9	-11°58.2	13	11°33.9	-10°54.4	13	11°39.4	-9°49.0	13	11°46.3	-8°42.3	13	11°54.4	-7°34.4
14	26°29.9	-11°57.3	14	26°34.0	-10°53.5	14	26°39.5	-9°48.1	14	26°46.4	-8°41.4	14	26°54.5	-7°33.5
15	41°29.9	-11°56.5	15	41°34.1	-10°52.6	15	41°39.6	-9°47.2	15	41°46.5	-8°40.4	15	41°54.6	-7°32.5
16	56°30.0	-11°55.6	16	56°34.1	-10°51.7	16	56°39.7	-9°46.3	16	56°46.6	-8°39.5	16	56°54.7	-7°31.6
17	71°30.0	-11°54.7	17	71°34.2	-10°50.8	17	71°39.8	-9°45.3	17	71°46.7	-8°38.6	17	71°54.9	-7°30.6
18	86°30.1	-11°53.8	18	86°34.3	-10°49.9	18	86°39.9	-9°44.4	18	86°46.8	-8°37.6	18	86°55.0	-7°29.7
19	101°30.1	-11°53.0	19	101°34.3	-10°49.0	19	101°40.0	-9°43.5	19	101°46.9	-8°36.7	19	101°55.1	-7°28.7
20	116°30.2	-11°52.1	20	116°34.4	-10°48.1	20	116°40.1	-9°42.6	20	116°47.0	-8°35.8	20	116°55.2	-7°27.8
21	131°30.2	-11°51.2	21	131°34.5	-10°47.2	21	131°40.1	-9°41.7	21	131°47.1	-8°34.8	21	131°55.4	-7°26.8
22	146°30.3	-11°50.3	22	146°34.5	-10°46.3	22	146°40.2	-9°40.8	22	146°47.3	-8°33.9	22	146°55.5	-7°25.9
23	161°30.3	-11°49.4	23	161°34.6	-10°45.4	23	161°40.3	-9°39.8	23	161°47.4	-8°32.9	23	161°55.6	-7°24.9
	SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.2	d=0.9		SD.=16.1	d=0.9

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	176°55.7	-7°24.0	0	177°05.1	-6°14.9	0	177°15.4	-5°05.1	0	177°26.6	-3°54.7	0	177°38.6	-2°43.9
1	191°55.8	-7°23.0	1	192°05.2	-6°14.0	1	192°15.6	-5°04.2	1	192°26.8	-3°53.8	1	192°38.8	-2°42.9
2	206°56.0	-7°22.1	2	207°05.3	-6°13.0	2	207°15.7	-5°03.2	2	207°26.9	-3°52.8	2	207°38.9	-2°41.9
3	221°56.1	-7°21.1	3	222°05.5	-6°12.1	3	222°15.9	-5°02.2	3	222°27.1	-3°51.8	3	222°39.1	-2°41.0
4	236°56.2	-7°20.1	4	237°05.6	-6°11.1	4	237°16.0	-5°01.3	4	237°27.3	-3°50.8	4	237°39.3	-2°40.0
5	251°56.3	-7°19.2	5	252°05.8	-6°10.1	5	252°16.2	-5°00.3	5	252°27.4	-3°49.8	5	252°39.4	-2°39.0
6	266°56.5	-7°18.2	6	267°05.9	-6°09.2	6	267°16.3	-4°59.3	6	267°27.6	-3°48.9	6	267°39.6	-2°38.0
7	281°56.6	-7°17.3	7	282°06.0	-6°08.2	7	282°16.5	-4°58.3	7	282°27.8	-3°47.9	7	282°39.8	-2°37.0
8	296°56.7	-7°16.3	8	297°06.2	-6°07.2	8	297°16.6	-4°57.4	8	297°27.9	-3°46.9	8	297°40.0	-2°36.0
9	311°56.8	-7°15.4	9	312°06.3	-6°06.3	9	312°16.8	-4°56.4	9	312°28.1	-3°45.9	9	312°40.1	-2°35.0
10	326°57.0	-7°14.4	10	327°06.5	-6°05.3	10	327°16.9	-4°55.4	10	327°28.2	-3°44.9	10	327°40.3	-2°34.1
11	341°57.1	-7°13.5	11	342°06.6	-6°04.3	11	342°17.1	-4°54.4	11	342°28.4	-3°43.9	11	342°40.5	-2°33.1
12	356°57.2	-7°12.5	12	357°06.7	-6°03.4	12	357°17.2	-4°53.5	12	357°28.6	-3°43.0	12	357°40.7	-2°32.1
13	11°57.3	-7°11.6	13	12°06.9	-6°02.4	13	12°17.4	-4°52.5	13	12°28.7	-3°42.0	13	12°40.8	-2°31.1
14	26°57.5	-7°10.6	14	27°07.0	-6°01.4	14	27°17.5	-4°51.5	14	27°28.9	-3°41.0	14	27°41.0	-2°30.1
15	41°57.6	-7°09.7	15	42°07.1	-6°00.5	15	42°17.7	-4°50.5	15	42°29.1	-3°40.0	15	42°41.2	-2°29.1
16	56°57.7	-7°08.7	16	57°07.3	-5°59.5	16	57°17.8	-4°49.5	16	57°29.2	-3°39.0	16	57°41.3	-2°28.1
17	71°57.8	-7°07.7	17	72°07.4	-5°58.5	17	72°18.0	-4°48.6	17	72°29.4	-3°38.0	17	72°41.5	-2°27.2
18	86°58.0	-7°06.8	18	87°07.6	-5°57.6	18	87°18.1	-4°47.6	18	87°29.5	-3°37.1	18	87°41.7	-2°26.2
19	101°58.1	-7°05.8	19	102°07.7	-5°56.6	19	102°18.3	-4°46.6	19	102°29.7	-3°36.1	19	102°41.9	-2°25.2
20	116°58.2	-7°04.9	20	117°07.8	-5°55.6	20	117°18.4	-4°45.6	20	117°29.9	-3°35.1	20	117°42.0	-2°24.2
21	131°58.3	-7°03.9	21	132°08.0	-5°54.7	21	132°18.6	-4°44.7	21	132°30.0	-3°34.1	21	132°42.2	-2°23.2
22	146°58.5	-7°03.0	22	147°08.1	-5°53.7	22	147°18.7	-4°43.7	22	147°30.2	-3°33.2	22	147°42.4	-2°22.2
23	161°58.6	-7°02.0	23	162°08.3	-5°52.7	23	162°18.9	-4°42.7	23	162°30.4	-3°32.2	23	162°42.6	-2°21.2
	SD.=16.1	d=1.0												

03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec	15	GHA	Dec
0	176°58.7	-7°01.1	0	177°08.4	-5°51.8	0	177°19.1	-4°41.7	0	177°30.5	-3°31.2	0	177°42.7	-2°20.2
1	191°58.8	-7°00.1	1	192°08.6	-5°50.8	1	192°19.2	-4°40.8	1	192°30.7	-3°30.2	1	192°42.9	-2°19.3
2	206°59.0	-6°59.1	2	207°08.7	-5°49.8	2	207°19.4	-4°39.8	2	207°30.9	-3°29.2	2	207°43.1	-2°18.3
3	221°59.1	-6°58.2	3	222°08.8	-5°48.9	3	222°19.5	-4°38.8	3	222°31.0	-3°28.2	3	222°43.3	-2°17.3
4	236°59.2	-6°57.2	4	237°09.0	-5°47.9	4	237°19.7	-4°37.8	4	237°31.2	-3°27.2	4	237°43.4	-2°16.3
5	251°59.4	-6°56.3	5	252°09.1	-5°46.9	5	252°19.8	-4°36.9	5	252°31.4	-3°26.3	5	252°43.6	-2°15.3
6	266°59.5	-6°55.3	6	267°09.3	-5°45.9	6	267°20.0	-4°35.9	6	267°31.5	-3°25.3	6	267°43.8	-2°14.3
7	281°59.6	-6°54.4	7	282°09.4	-5°45.0	7	282°20.1	-4°34.9	7	282°31.7	-3°24.3	7	282°43.9	-2°13.3
8	296°59.7	-6°53.4	8	297°09.5	-5°44.0	8	297°20.3	-4°33.9	8	297°31.9	-3°23.3	8	297°44.1	-2°12.4
9	311°59.9	-6°52.4	9	312°09.7	-5°43.0	9	312°20.4	-4°32.9	9	312°32.0	-3°22.3	9	312°44.3	-2°11.4
10	327°00.0	-6°51.5	10	327°09.8	-5°42.1	10	327°20.6	-4°32.0	10	327°32.2	-3°21.3	10	327°44.5	-2°10.4
11	342°00.1	-6°50.5	11	342°10.0	-5°41.1	11	342°20.8	-4°31.0	11	342°32.3	-3°20.4	11	342°44.6	-2°09.4
12	357°00.3	-6°49.6	12	357°10.1	-5°40.1	12	357°20.9	-4°30.0	12	357°32.5	-3°19.4	12	357°44.8	-2°08.4
13	12°00.4	-6°48.6	13	12°10.3	-5°39.2	13	12°21.1	-4°29.0	13	12°32.7	-3°18.4	13	12°45.0	-2°07.4
14	27°00.5	-6°47.6	14	27°10.4	-5°38.2	14	27°21.2	-4°28.1	14	27°32.8	-3°17.4	14	27°45.2	-2°06.4
15	42°00.7	-6°46.7	15	42°10.6	-5°37.2	15	42°21.4	-4°27.1	15	42°33.0	-3°16.4	15	42°45.3	-2°05.4
16	57°00.8	-6°45.7	16	57°10.7	-5°36.3	16	57°21.5	-4°26.1	16	57°33.2	-3°15.4	16	57°45.5	-2°04.5
17	72°00.9	-6°44.8	17	72°10.8	-5°35.3	17	72°21.7	-4°25.1	17	72°33.3	-3°14.5	17	72°45.7	-2°03.5
18	87°01.0	-6°43.8	18	87°11.0	-5°34.3	18	87°21.8	-4°24.1	18	87°33.5	-3°13.5	18	87°45.9	-2°02.5
19	102°01.2	-6°42.8	19	102°11.1	-5°33.3	19	102°22.0	-4°23.2	19	102°33.7	-3°12.5	19	102°46.1	-2°01.5
20	117°01.3	-6°41.9	20	117°11.3	-5°32.4	20	117°22.2	-4°22.2	20	117°33.9	-3°11.5	20	117°46.2	-2°00.5
21	132°01.4	-6°40.9	21	132°11.4	-5°31.4	21	132°22.3	-4°21.2	21	132°34.0	-3°10.5	21	132°46.4	-1°59.5
22	147°01.6	-6°40.0	22	147°11.6	-5°30.4	22	147°22.5	-4°20.2	22	147°34.2	-3°09.5	22	147°46.6	-1°58.5
23	162°01.7	-6°39.0	23	162°11.7	-5°29.5	23	162°22.6	-4°19.2	23	162°34.4	-3°08.5	23	162°46.8	-1°57.5
	SD.=16.1	d=1.0												

04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec	16	GHA	Dec
0	177°01.8	-6°38.0	0	177°11.9	-5°28.5	0	177°22.8	-4°18.3	0	177°34.5	-3°07.6	0	177°46.9	-1°56.6
1	192°02.0	-6°37.1	1	192°12.0	-5°27.5	1	192°22.9	-4°17.3	1	192°34.7	-3°06.6	1	192°47.1	-1°55.6
2	207°02.1	-6°36.1	2	207°12.2	-5°26.5	2	207°23.1	-4°16.3	2	207°34.9	-3°05.6	2	207°47.3	-1°54.6
3	222°02.2	-6°35.2	3	222°12.3	-5°25.6	3	222°23.3	-4°15.3	3	222°35.0	-3°04.6	3	222°47.5	-1°53.6
4	237°02.4	-6°34.2	4	237°12.4	-5°24.6	4	237°23.4	-4°14.4	4	237°35.2	-3°03.6	4	237°47.6	-1°52.6
5	252°02.5	-6°33.2	5	252°12.6	-5°23.6	5	252°23.6	-4°13.4	5	252°35.4	-3°02.6	5	252°47.8	-1°51.6
6	267°02.6	-6°32.3	6	267°12.7	-5°22.7	6	267°23.7	-4°12.4	6	267°35.5	-3°01.7	6	267°48.0	-1°50.6
7	282°02.8	-6°31.3	7	282°12.9	-5°21.7	7	282°23.9	-4°11.4	7	282°35.7	-3°00.7	7	282°48.2	-1°49.6
8	297°02.9	-6°30.4	8	297°13.0	-5°20.7	8	297°24.1	-4°10.4	8	297°35.9	-2°59.7	8	297°48.3	-1°48.7
9	312°03.0	-6°29.4	9	312°13.2	-5°19.7	9	312°24.2	-4°09.5	9	312°36.0	-2°58.7	9	312°48.5	-1°47.7
10	327°03.2	-6°28.4	10	327°13.3	-5°18.8	10	327°24.4	-4°08.5	10	327°36.2	-2°57.7	10	327°48.7	-1°46.7
11	342°03.3	-6°27.5	11	342°13.5	-5°17.8	11	342°24.5	-4°07.5	11	342°36.4	-2°56.7	11	342°48.9	-1°45.7
12	357°03.4	-6°26.5	12	357°13.6	-5°16.8	12	357°24.7	-4°06.5	12	357°36.5	-2°55.7	12	357°49.1	-1°44.7
13	12°03.6	-6°25.5	13	12°13.8	-5°15.9	13	12°24.9	-4°05.5	13	12°36.7	-2°54.8	13	12°49.2	-1°43.7
14	27°03.7	-6°24.6	14	27°13.9	-5°14.9	14	27°25.0	-4°04.6	14	27°36.9	-2°53.8	14	27°49.4	-1°42.7
15	42°03.8	-6°23.6	15	42°14.1	-5°13.9	15	42°25.2	-4°03.6	15	42°37.1	-2°52.8	15	42°49.6	-1°41.7
16	57°04.0	-6°22.7	16	57°14.2	-5°12.9	16	57°25.3	-4°02.6	16	57°37.2	-2°51.8	16	57°49.8	-1°40.7
17	72°04.1	-6°21.7	17	72°14.4	-5°12.0	17	72°25.5	-4°01.6	17	72°37.4	-2°50.8	17	72°49.9	-1°39.8
18	87°04.3	-6°20.7	18	87°14.5	-5°11.0	18	87°25.7	-4°00.6	18	87°37.6	-2°49.8	18	87°50.1	-1°38.8
19	102°04.4	-6°19.8	19	102°14.7	-5°10.0	19	102°25.8	-3°59.7	19	102°37.7	-2°48.8	19	102°50.3	-1°37.8
20	117°04.5	-6°18.8	20	117°14.8	-5°09.0	20	117°26.0	-3°58.7	20	117°37.9	-2°47.9	20	117°50.5	-1°36.8
21	132°04.7	-6°17.8	21	132°15.0	-5°08.1	21	132°26.1	-3°57.7	21	132°38.1	-2°46.9	21	132°50.7	-1°35.8
22	147°04.8	-6°16.9	22	147°15.1	-5°07.1	22	147°26.3	-3°56.7	22	147°38.2	-2°45.9	22	147°50.8	-1°34.8
23	162°04.9	-6°15.9	23	162°15.3	-5°06.1	23	162°26.5	-3°55.7	23	162°38.4	-2°44.9	23	162°51.0	-1°33.8
	SD.=16.1	d=1.0												

17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	177°51.2	-1°32.8	0	178°04.3	-0°21.7	0	178°17.7	0°49.4	0	178°31.3	2°00.2	0	178°44.9	3°10.7
1	192°51.4	-1°31.9	1	193°04.5	-0°20.7	1	193°17.9	0°50.4	1	193°31.5	2°01.2	1	193°45.1	3°11.7
2	207°51.6	-1°30.9	2	208°04.7	-0°19.7	2	208°18.1	0°51.3	2	208°31.7	2°02.2	2	208°45.3	3°12.6
3	222°51.7	-1°29.9	3	223°04.9	-0°18.7	3	223°18.3	0°52.3	3	223°31.9	2°03.2	3	223°45.5	3°13.6
4	237°51.9	-1°28.9	4	238°05.0	-0°17.7	4	238°18.5	0°53.3	4	238°32.1	2°04.1	4	238°45.7	3°14.6
5	252°52.1	-1°27.9	5	253°05.2	-0°16.8	5	253°18.7	0°54.3	5	253°32.3	2°05.1	5	253°45.9	3°15.6
6	267°52.3	-1°26.9	6	268°05.4	-0°15.8	6	268°18.9	0°55.3	6	268°32.5	2°06.1	6	268°46.0	3°16.5
7	282°52.5	-1°25.9	7	283°05.6	-0°14.8	7	283°19.0	0°56.3	7	283°32.6	2°07.1	7	283°46.2	3°17.5
8	297°52.6	-1°24.9	8	298°05.8	-0°13.8	8	298°19.2	0°57.3	8	298°32.8	2°08.1	8	298°46.4	3°18.5
9	312°52.8	-1°24.0	9	313°06.0	-0°12.8	9	313°19.4	0°58.2	9	313°33.0	2°09.1	9	313°46.6	3°19.5
10	327°53.0	-1°23.0	10	328°06.1	-0°11.8	10	328°19.6	0°59.2	10	328°33.2	2°10.0	10	328°46.8	3°20.4
11	342°53.2	-1°22.0	11	343°06.3	-0°10.8	11	343°19.8	1°00.2	11	343°33.4	2°11.0	11	343°47.0	3°21.4
12	357°53.4	-1°21.0	12	358°06.5	-0°09.8	12	358°20.0	1°01.2	12	358°33.6	2°12.0	12	358°47.2	3°22.4
13	12°53.5	-1°20.0	13	13°06.7	-0°08.9	13	13°20.2	1°02.2	13	13°33.8	2°13.0	13	13°47.4	3°23.4
14	27°53.7	-1°19.0	14	28°06.9	-0°07.9	14	28°20.4	1°03.2	14	28°34.0	2°14.0	14	28°47.6	3°24.3
15	42°53.9	-1°18.0	15	43°07.1	-0°06.9	15	43°20.6	1°04.2	15	43°34.2	2°14.9	15	43°47.7	3°25.3
16	57°54.1	-1°17.0	16	58°07.3	-0°05.9	16	58°20.7	1°05.1	16	58°34.3	2°15.9	16	58°47.9	3°26.3
17	72°54.3	-1°16.0	17	73°07.4	-0°04.9	17	73°20.9	1°06.1	17	73°34.5	2°16.9	17	73°48.1	3°27.3
18	87°54.4	-1°15.1	18	88°07.6	-0°03.9	18	88°21.1	1°07.1	18	88°34.7	2°17.9	18	88°48.3	3°28.2
19	102°54.6	-1°14.1	19	103°07.8	-0°02.9	19	103°21.3	1°08.1	19	103°34.9	2°18.9	19	103°48.5	3°29.2
20	117°54.8	-1°13.1	20	118°08.0	-0°01.9	20	118°21.5	1°09.1	20	118°35.1	2°19.8	20	118°48.7	3°30.2
21	132°55.0	-1°12.1	21	133°08.2	-0°00.9	21	133°21.7	1°10.1	21	133°35.3	2°20.8	21	133°48.9	3°31.1
22	147°55.2	-1°11.1	22	148°08.4	0°00.0	22	148°21.9	1°11.1	22	148°35.5	2°21.8	22	148°49.1	3°32.1
23	162°55.3	-1°10.1	23	163°08.6	0°01.0	23	163°22.1	1°12.0	23	163°35.7	2°22.8	23	163°49.2	3°33.1
	SD.=16.1	d=1.0		SD.=16.1	d=1.0		SD.=16.1	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=1.0

18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec	30	GHA	Dec
0	177°55.5	-1°09.1	0	178°08.7	0°02.0	0	178°22.2	1°13.0	0	178°35.9	2°23.8	0	178°49.4	3°34.1
1	192°55.7	-1°08.1	1	193°08.9	0°03.0	1	193°22.4	1°14.0	1	193°36.0	2°24.7	1	193°49.6	3°35.0
2	207°55.9	-1°07.2	2	208°09.1	0°04.0	2	208°22.6	1°15.0	2	208°36.2	2°25.7	2	208°49.8	3°36.0
3	222°56.1	-1°06.2	3	223°09.3	0°05.0	3	223°22.8	1°16.0	3	223°36.4	2°26.7	3	223°50.0	3°37.0
4	237°56.2	-1°05.2	4	238°09.5	0°06.0	4	238°23.0	1°17.0	4	238°36.6	2°27.7	4	238°50.2	3°38.0
5	252°56.4	-1°04.2	5	253°09.7	0°07.0	5	253°23.2	1°17.9	5	253°36.8	2°28.7	5	253°50.4	3°38.9
6	267°56.6	-1°03.2	6	268°09.9	0°07.9	6	268°23.4	1°18.9	6	268°37.0	2°29.6	6	268°50.6	3°39.9
7	282°56.8	-1°02.2	7	283°10.1	0°08.9	7	283°23.6	1°19.9	7	283°37.2	2°30.6	7	283°50.7	3°40.9
8	297°57.0	-1°01.2	8	298°10.2	0°09.9	8	298°23.8	1°20.9	8	298°37.4	2°31.6	8	298°50.9	3°41.8
9	312°57.2	-1°00.2	9	313°10.4	0°10.9	9	313°23.9	1°21.9	9	313°37.6	2°32.6	9	313°51.1	3°42.8
10	327°57.3	-0°59.2	10	328°10.6	0°11.9	10	328°24.1	1°22.9	10	328°37.7	2°33.6	10	328°51.3	3°43.8
11	342°57.5	-0°58.3	11	343°10.8	0°12.9	11	343°24.3	1°23.9	11	343°37.9	2°34.5	11	343°51.5	3°44.8
12	357°57.7	-0°57.3	12	358°11.0	0°13.9	12	358°24.5	1°24.8	12	358°38.1	2°35.5	12	358°51.7	3°45.7
13	12°57.9	-0°56.3	13	13°11.2	0°14.8	13	13°24.7	1°25.8	13	13°38.3	2°36.5	13	13°51.9	3°46.7
14	27°58.1	-0°55.3	14	28°11.4	0°15.8	14	28°24.9	1°26.8	14	28°38.5	2°37.5	14	28°52.1	3°47.7
15	42°58.2	-0°54.3	15	43°11.5	0°16.8	15	43°25.1	1°27.8	15	43°38.7	2°38.4	15	43°52.2	3°48.6
16	57°58.4	-0°53.3	16	58°11.7	0°17.8	16	58°25.3	1°28.8	16	58°38.9	2°39.4	16	58°52.4	3°49.6
17	72°58.6	-0°52.3	17	73°11.9	0°18.8	17	73°25.5	1°29.8	17	73°39.1	2°40.4	17	73°52.6	3°50.6
18	87°58.8	-0°51.3	18	88°12.1	0°19.8	18	88°25.6	1°30.7	18	88°39.3	2°41.4	18	88°52.8	3°51.6
19	102°59.0	-0°50.4	19	103°12.3	0°20.8	19	103°25.8	1°31.7	19	103°39.4	2°42.4	19	103°53.0	3°52.5
20	117°59.2	-0°49.4	20	118°12.5	0°21.8	20	118°26.0	1°32.7	20	118°39.6	2°43.3	20	118°53.2	3°53.5
21	132°59.3	-0°48.4	21	133°12.7	0°22.7	21	133°26.2	1°33.7	21	133°39.8	2°44.3	21	133°53.4	3°54.5
22	147°59.5	-0°47.4	22	148°12.9	0°23.7	22	148°26.4	1°34.7	22	148°40.0	2°45.3	22	148°53.5	3°55.4
23	162°59.7	-0°46.4	23	163°13.0	0°24.7	23	163°26.6	1°35.7	23	163°40.2	2°46.3	23	163°53.7	3°56.4
	SD.=16.1	d=1.0		SD.=16.1	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=1.0

19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec	31	GHA	Dec
0	177°59.9	-0°45.4	0	178°13.2	0°25.7	0	178°26.8	1°36.6	0	178°40.4	2°47.3	0	178°53.9	3°57.4
1	193°00.1	-0°44.4	1	193°13.4	0°26.7	1	193°27.0	1°37.6	1	193°40.6	2°48.2	1	193°54.1	3°58.3
2	208°00.3	-0°43.4	2	208°13.6	0°27.7	2	208°27.2	1°38.6	2	208°40.8	2°49.2	2	208°54.3	3°59.3
3	223°00.4	-0°42.4	3	223°13.8	0°28.7	3	223°27.3	1°39.6	3	223°41.0	2°50.2	3	223°54.5	4°00.3
4	238°00.6	-0°41.5	4	238°14.0	0°29.7	4	238°27.5	1°40.6	4	238°41.1	2°51.2	4	238°54.7	4°01.3
5	253°00.8	-0°40.5	5	253°14.2	0°30.6	5	253°27.7	1°41.6	5	253°41.3	2°52.1	5	253°54.9	4°02.2
6	268°01.0	-0°39.5	6	268°14.3	0°31.6	6	268°27.9	1°42.5	6	268°41.5	2°53.1	6	268°55.0	4°03.2
7	283°01.2	-0°38.5	7	283°14.5	0°32.6	7	283°28.1	1°43.5	7	283°41.7	2°54.1	7	283°55.2	4°04.2
8	298°01.4	-0°37.5	8	298°14.7	0°33.6	8	298°28.3	1°44.5	8	298°41.9	2°55.1	8	298°55.4	4°05.1
9	313°01.5	-0°36.5	9	313°14.9	0°34.6	9	313°28.5	1°45.5	9	313°42.1	2°56.0	9	313°55.6	4°06.1
10	328°01.7	-0°35.5	10	328°15.1	0°35.6	10	328°28.7	1°46.5	10	328°42.3	2°57.0	10	328°55.8	4°07.1
11	343°01.9	-0°34.5	11	343°15.3	0°36.6	11	343°28.9	1°47.5	11	343°42.5	2°58.0	11	343°56.0	4°08.0
12	358°02.1	-0°33.6	12	358°15.5	0°37.5	12	358°29.0	1°48.4	12	358°42.7	2°59.0	12	358°56.2	4°09.0
13	13°02.3	-0°32.6	13	13°15.7	0°38.5	13	13°29.2	1°49.4	13	13°42.8	2°60.0	13	13°56.3	4°10.0
14	28°02.5	-0°31.6	14	28°15.8	0°39.5	14	28°29.4	1°50.4	14	28°43.0	3°00.9	14	28°56.5	4°10.9
15	43°02.6	-0°30.6	15	43°16.0	0°40.5	15	43°29.6	1°51.4	15	43°43.2	3°01.9	15	43°56.7	4°11.9
16	58°02.8	-0°29.6	16	58°16.2	0°41.5	16	58°29.8	1°52.4	16	58°43.4	3°02.9	16	58°56.9	4°12.9
17	73°03.0	-0°28.6	17	73°16.4	0°42.5	17	73°30.0	1°53.3	17	73°43.6	3°03.9	17	73°57.1	4°13.8
18	88°03.2	-0°27.6	18	88°16.6	0°43.5	18	88°30.2	1°54.3	18	88°43.8	3°04.8	18	88°57.3	4°14.8
19	103°03.4	-0°26.6	19	103°16.8	0°44.4	19	103°30.4	1°55.3	19	103°44.0	3°05.8	19	103°57.5	4°15.8
20	118°03.6	-0°25.6	20	118°17.0	0°45.4	20	118°30.6	1°56.3	20	118°44.2	3°06.8	20	118°57.6	4°16.7
21	133°03.7	-0°24.7	21	133°17.2	0°46.4	21	133°30.8	1°57.3	21	133°44.4	3°07.8	21	133°57.8	4°17.7
22	148°03.9	-0°23.7	22	148°17.4	0°47.4	22	148°30.9	1°58.3	22	148°44.5	3°08.7	22	148°58.0	4°18.7
23	163°04.1	-0°22.7	23	163°17.5	0°48.4	23	163°31.1	1°59.2	23	163°44.7	3°09.7	23	163°58.2	4°19.6
	SD.=16.1	d=1.0		SD.=16.1	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=1.0

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	178°58.4	4°20.6	0	179°11.6	5°29.8	0	179°24.5	6°38.2	0	179°36.9	7°45.5	0	179°48.7	8°51.7
1	193°58.6	4°21.6	1	194°11.8	5°30.8	1	194°24.7	6°39.1	1	194°37.1	7°46.5	1	194°48.9	8°52.6
2	208°58.8	4°22.5	2	209°12.0	5°31.8	2	209°24.8	6°40.1	2	209°37.2	7°47.4	2	209°49.1	8°53.5
3	223°58.9	4°23.5	3	224°12.2	5°32.7	3	224°25.0	6°41.0	3	224°37.4	7°48.3	3	224°49.2	8°54.4
4	238°59.1	4°24.5	4	239°12.3	5°33.7	4	239°25.2	6°42.0	4	239°37.6	7°49.3	4	239°49.4	8°55.3
5	253°59.3	4°25.4	5	254°12.5	5°34.6	5	254°25.4	6°42.9	5	254°37.7	7°50.2	5	254°49.5	8°56.2
6	268°59.5	4°26.4	6	269°12.7	5°35.6	6	269°25.5	6°43.9	6	269°37.9	7°51.1	6	269°49.7	8°57.2
7	283°59.7	4°27.4	7	284°12.9	5°36.5	7	284°25.7	6°44.8	7	284°38.1	7°52.0	7	284°49.9	8°58.1
8	298°59.9	4°28.3	8	299°13.1	5°37.5	8	299°25.9	6°45.7	8	299°38.2	7°53.0	8	299°50.0	8°59.0
9	314°00.1	4°29.3	9	314°13.2	5°38.4	9	314°26.1	6°46.7	9	314°38.4	7°53.9	9	314°50.2	8°59.9
10	329°00.2	4°30.3	10	329°13.4	5°39.4	10	329°26.2	6°47.6	10	329°38.6	7°54.8	10	329°50.3	9°00.8
11	344°00.4	4°31.2	11	344°13.6	5°40.3	11	344°26.4	6°48.6	11	344°38.7	7°55.7	11	344°50.5	9°01.7
12	359°00.6	4°32.2	12	359°13.8	5°41.3	12	359°26.6	6°49.5	12	359°38.9	7°56.7	12	359°50.7	9°02.6
13	14°00.8	4°33.2	13	14°14.0	5°42.3	13	14°26.8	6°50.4	13	14°39.1	7°57.6	13	14°50.8	9°03.5
14	29°01.0	4°34.1	14	29°14.2	5°43.2	14	29°26.9	6°51.4	14	29°39.2	7°58.5	14	29°51.0	9°04.4
15	44°01.2	4°35.1	15	44°14.3	5°44.2	15	44°27.1	6°52.3	15	44°39.4	7°59.4	15	44°51.1	9°05.3
16	59°01.4	4°36.1	16	59°14.5	5°45.1	16	59°27.3	6°53.3	16	59°39.6	8°00.4	16	59°51.3	9°06.2
17	74°01.5	4°37.0	17	74°14.7	5°46.1	17	74°27.5	6°54.2	17	74°39.7	8°01.3	17	74°51.5	9°07.1
18	89°01.7	4°38.0	18	89°14.9	5°47.0	18	89°27.6	6°55.1	18	89°39.9	8°02.2	18	89°51.6	9°08.0
19	104°01.9	4°39.0	19	104°15.1	5°48.0	19	104°27.8	6°56.1	19	104°40.1	8°03.1	19	104°51.8	9°08.9
20	119°02.1	4°39.9	20	119°15.2	5°48.9	20	119°28.0	6°57.0	20	119°40.2	8°04.0	20	119°51.9	9°09.8
21	134°02.3	4°40.9	21	134°15.4	5°49.9	21	134°28.2	6°58.0	21	134°40.4	8°05.0	21	134°52.1	9°10.8
22	149°02.5	4°41.8	22	149°15.6	5°50.8	22	149°28.3	6°58.9	22	149°40.6	8°05.9	22	149°52.2	9°11.7
23	164°02.6	4°42.8	23	164°15.8	5°51.8	23	164°28.5	6°59.8	23	164°40.7	8°06.8	23	164°52.4	9°12.6
	SD.=16.0	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=0.9		SD.=16.0	d=0.9		SD.=16.0	d=0.9

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	179°02.8	4°43.8	0	179°16.0	5°52.7	0	179°28.7	7°00.8	0	179°40.9	8°07.7	0	179°52.6	9°13.5
1	194°03.0	4°44.7	1	194°16.1	5°53.7	1	194°28.9	7°01.7	1	194°41.1	8°08.7	1	194°52.7	9°14.4
2	209°03.2	4°45.7	2	209°16.3	5°54.6	2	209°29.0	7°02.6	2	209°41.2	8°09.6	2	209°52.9	9°15.3
3	224°03.4	4°46.7	3	224°16.5	5°55.6	3	224°29.2	7°03.6	3	224°41.4	8°10.5	3	224°53.0	9°16.2
4	239°03.6	4°47.6	4	239°16.7	5°56.5	4	239°29.4	7°04.5	4	239°41.6	8°11.4	4	239°53.2	9°17.1
5	254°03.8	4°48.6	5	254°16.8	5°57.5	5	254°29.5	7°05.5	5	254°41.7	8°12.3	5	254°53.3	9°18.0
6	269°03.9	4°49.6	6	269°17.0	5°58.4	6	269°29.7	7°06.4	6	269°41.9	8°13.3	6	269°53.5	9°18.9
7	284°04.1	4°50.5	7	284°17.2	5°59.4	7	284°29.9	7°07.3	7	284°42.1	8°14.2	7	284°53.7	9°19.8
8	299°04.3	4°51.5	8	299°17.4	6°00.3	8	299°30.1	7°08.3	8	299°42.2	8°15.1	8	299°53.8	9°20.7
9	314°04.5	4°52.4	9	314°17.6	6°01.3	9	314°30.2	7°09.2	9	314°42.4	8°16.0	9	314°54.0	9°21.6
10	329°04.7	4°53.4	10	329°17.7	6°02.2	10	329°30.4	7°10.1	10	329°42.6	8°16.9	10	329°54.1	9°22.5
11	344°04.9	4°54.4	11	344°17.9	6°03.2	11	344°30.6	7°11.1	11	344°42.7	8°17.9	11	344°54.3	9°23.4
12	359°05.0	4°55.3	12	359°18.1	6°04.1	12	359°30.8	7°12.0	12	359°42.9	8°18.8	12	359°54.4	9°24.3
13	14°05.2	4°56.3	13	14°18.3	6°05.1	13	14°30.9	7°12.9	13	14°43.1	8°19.7	13	14°54.6	9°25.2
14	29°05.4	4°57.2	14	29°18.5	6°06.0	14	29°31.1	7°13.9	14	29°43.2	8°20.6	14	29°54.7	9°26.1
15	44°05.6	4°58.2	15	44°18.6	6°07.0	15	44°31.3	7°14.8	15	44°43.4	8°21.5	15	44°54.9	9°27.0
16	59°05.8	4°59.2	16	59°18.8	6°07.9	16	59°31.4	7°15.8	16	59°43.6	8°22.5	16	59°55.1	9°27.9
17	74°06.0	5°00.1	17	74°19.0	6°08.9	17	74°31.6	7°16.7	17	74°43.7	8°23.4	17	74°55.2	9°28.8
18	89°06.1	5°01.1	18	89°19.2	6°09.8	18	89°31.8	7°17.6	18	89°43.9	8°24.3	18	89°55.4	9°29.7
19	104°06.3	5°02.1	19	104°19.4	6°10.8	19	104°32.0	7°18.6	19	104°44.0	8°25.2	19	104°55.5	9°30.6
20	119°06.5	5°03.0	20	119°19.5	6°11.7	20	119°32.1	7°19.5	20	119°44.2	8°26.1	20	119°55.7	9°31.5
21	134°06.7	5°04.0	21	134°19.7	6°12.7	21	134°32.3	7°20.4	21	134°44.4	8°27.0	21	134°55.8	9°32.4
22	149°06.9	5°04.9	22	149°19.9	6°13.6	22	149°32.5	7°21.4	22	149°44.5	8°28.0	22	149°56.0	9°33.3
23	164°07.1	5°05.9	23	164°20.1	6°14.6	23	164°32.6	7°22.3	23	164°44.7	8°28.9	23	164°56.1	9°34.2
	SD.=16.0	d=1.0		SD.=16.0	d=1.0		SD.=16.0	d=0.9		SD.=16.0	d=0.9		SD.=15.9	d=0.9

03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec	15	GHA	Dec
0	179°07.2	5°06.9	0	179°20.2	6°15.5	0	179°32.8	7°23.2	0	179°44.9	8°29.8	0	179°56.3	9°35.1
1	194°07.4	5°07.8	1	194°20.4	6°16.5	1	194°33.0	7°24.2	1	194°45.0	8°30.7	1	194°56.4	9°36.0
2	209°07.6	5°08.8	2	209°20.6	6°17.4	2	209°33.2	7°25.1	2	209°45.2	8°31.6	2	209°56.6	9°36.9
3	224°07.8	5°09.7	3	224°20.8	6°18.4	3	224°33.3	7°26.0	3	224°45.4	8°32.5	3	224°56.7	9°37.8
4	239°08.0	5°10.7	4	239°21.0	6°19.3	4	239°33.5	7°27.0	4	239°45.5	8°33.5	4	239°56.9	9°38.7
5	254°08.2	5°11.6	5	254°21.1	6°20.3	5	254°33.7	7°27.9	5	254°45.7	8°34.4	5	254°57.1	9°39.5
6	269°08.3	5°12.6	6	269°21.3	6°21.2	6	269°33.8	7°28.8	6	269°45.8	8°35.3	6	269°57.2	9°40.4
7	284°08.5	5°13.6	7	284°21.5	6°22.1	7	284°34.0	7°29.7	7	284°46.0	8°36.2	7	284°57.4	9°41.3
8	299°08.7	5°14.5	8	299°21.7	6°23.1	8	299°34.2	7°30.7	8	299°46.2	8°37.1	8	299°57.5	9°42.2
9	314°08.9	5°15.5	9	314°21.8	6°24.0	9	314°34.4	7°31.6	9	314°46.3	8°38.0	9	314°57.7	9°43.1
10	329°09.1	5°16.4	10	329°22.0	6°25.0	10	329°34.5	7°32.5	10	329°46.5	8°38.9	10	329°57.8	9°44.0
11	344°09.3	5°17.4	11	344°22.2	6°25.9	11	344°34.7	7°33.5	11	344°46.7	8°39.9	11	344°58.0	9°44.9
12	359°09.4	5°18.4	12	359°22.4	6°26.9	12	359°34.9	7°34.4	12	359°46.8	8°40.8	12	359°58.1	9°45.8
13	14°09.6	5°19.3	13	14°22.5	6°27.8	13	14°35.0	7°35.3	13	14°47.0	8°41.7	13	14°58.3	9°46.7
14	29°09.8	5°20.3	14	29°22.7	6°28.8	14	29°35.2	7°36.3	14	29°47.1	8°42.6	14	29°58.4	9°47.6
15	44°10.0	5°21.2	15	44°22.9	6°29.7	15	44°35.4	7°37.2	15	44°47.3	8°43.5	15	44°58.6	9°48.5
16	59°10.2	5°22.2	16	59°23.1	6°30.7	16	59°35.5	7°38.1	16	59°47.5	8°44.4	16	59°58.7	9°49.4
17	74°10.3	5°23.1	17	74°23.3	6°31.6	17	74°35.7	7°39.0	17	74°47.6	8°45.3	17	74°58.9	9°50.3
18	89°10.5	5°24.1	18	89°23.4	6°32.5	18	89°35.9	7°40.0	18	89°47.8	8°46.2	18	89°59.0	9°51.2
19	104°10.7	5°25.1	19	104°23.6	6°33.5	19	104°36.0	7°40.9	19	104°47.9	8°47.2	19	104°59.2	9°52.1
20	119°10.9	5°26.0	20	119°23.8	6°34.4	20	119°36.2	7°41.8	20	119°48.1	8°48.1	20	119°59.3	9°52.9
21	134°11.1	5°27.0	21	134°24.0	6°35.4	21	134°36.4	7°42.8	21	134°48.3	8°49.0	21	134°59.5	9°53.8
22	149°11.3	5°27.9	22	149°24.1	6°36.3	22	149°36.6	7°43.7	22	149°48.4	8°49.9	22	149°59.6	9°54.7
23	164°11.4	5°28.9	23	164°24.3	6°37.3	23	164°36.7	7°44.6	23	164°48.6	8°50.8	23	164°59.8	9°55.6
	SD.=16.0	d=1.0		SD.=16.0	d=0.9		SD.=16.0	d=0.9		SD.=16.0	d=0.9		SD.=15.9	d=0.9

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	179°59.9	9°56.5	0	180°10.4	10°59.8	0	180°19.9	12°01.5	0	180°28.4	13°01.4	0	180°35.7	13°59.4
1	195°00.1	9°57.4	1	195°10.5	11°00.7	1	195°20.0	12°02.3	1	195°28.5	13°02.2	1	195°35.8	14°00.2
2	210°00.2	9°58.3	2	210°10.6	11°01.6	2	210°20.1	12°03.2	2	210°28.6	13°03.0	2	210°35.9	14°01.0
3	225°00.4	9°59.2	3	225°10.8	11°02.4	3	225°20.2	12°04.0	3	225°28.7	13°03.9	3	225°36.0	14°01.8
4	240°00.5	10°00.1	4	240°10.9	11°03.3	4	240°20.4	12°04.9	4	240°28.8	13°04.7	4	240°36.1	14°02.5
5	255°00.7	10°01.0	5	255°11.0	11°04.2	5	255°20.5	12°05.7	5	255°28.9	13°05.5	5	255°36.2	14°03.3
6	270°00.8	10°01.8	6	270°11.2	11°05.0	6	270°20.6	12°06.6	6	270°29.0	13°06.3	6	270°36.3	14°04.1
7	285°01.0	10°02.7	7	285°11.3	11°05.9	7	285°20.7	12°07.4	7	285°29.1	13°07.1	7	285°36.4	14°04.9
8	300°01.1	10°03.6	8	300°11.5	11°06.8	8	300°20.9	12°08.2	8	300°29.2	13°07.9	8	300°36.5	14°05.7
9	315°01.3	10°04.5	9	315°11.6	11°07.6	9	315°21.0	12°09.1	9	315°29.3	13°08.8	9	315°36.6	14°06.5
10	330°01.4	10°05.4	10	330°11.7	11°08.5	10	330°21.1	12°09.9	10	330°29.5	13°09.6	10	330°36.7	14°07.3
11	345°01.6	10°06.3	11	345°11.9	11°09.4	11	345°21.2	12°10.8	11	345°29.6	13°10.4	11	345°36.8	14°08.1
12	0°01.7	10°07.2	12	0°12.0	11°10.2	12	0°21.4	12°11.6	12	0°29.7	13°11.2	12	0°36.9	14°08.9
13	15°01.9	10°08.1	13	15°12.1	11°11.1	13	15°21.5	12°12.4	13	15°29.8	13°12.0	13	15°37.0	14°09.6
14	30°02.0	10°08.9	14	30°12.3	11°11.9	14	30°21.6	12°13.3	14	30°29.9	13°12.8	14	30°37.0	14°10.4
15	45°02.2	10°09.8	15	45°12.4	11°12.8	15	45°21.7	12°14.1	15	45°30.0	13°13.6	15	45°37.1	14°11.2
16	60°02.3	10°10.7	16	60°12.5	11°13.7	16	60°21.8	12°15.0	16	60°30.1	13°14.5	16	60°37.2	14°12.0
17	75°02.5	10°11.6	17	75°12.7	11°14.5	17	75°22.0	12°15.8	17	75°30.2	13°15.3	17	75°37.3	14°12.8
18	90°02.6	10°12.5	18	90°12.8	11°15.4	18	90°22.1	12°16.6	18	90°30.3	13°16.1	18	90°37.4	14°13.6
19	105°02.8	10°13.4	19	105°13.0	11°16.3	19	105°22.2	12°17.5	19	105°30.4	13°16.9	19	105°37.5	14°14.3
20	120°02.9	10°14.3	20	120°13.1	11°17.1	20	120°22.3	12°18.3	20	120°30.5	13°17.7	20	120°37.6	14°15.1
21	135°03.1	10°15.1	21	135°13.2	11°18.0	21	135°22.4	12°19.2	21	135°30.6	13°18.5	21	135°37.7	14°15.9
22	150°03.2	10°16.0	22	150°13.4	11°18.8	22	150°22.6	12°20.0	22	150°30.7	13°19.3	22	150°37.8	14°16.7
23	165°03.4	10°16.9	23	165°13.5	11°19.7	23	165°22.7	12°20.8	23	165°30.8	13°20.1	23	165°37.9	14°17.5
	SD.=15.9	d=0.9		SD.=15.9	d=0.9		SD.=15.9	d=0.8		SD.=15.9	d=0.8		SD.=15.9	d=0.8

17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	180°03.5	10°17.8	0	180°13.6	11°20.6	0	180°22.8	12°21.7	0	180°30.9	13°20.9	0	180°37.9	14°18.3
1	195°03.6	10°18.7	1	195°13.8	11°21.4	1	195°22.9	12°22.5	1	195°31.1	13°21.8	1	195°38.0	14°19.0
2	210°03.8	10°19.6	2	210°13.9	11°22.3	2	210°23.1	12°23.3	2	210°31.2	13°22.6	2	210°38.1	14°19.8
3	225°03.9	10°20.4	3	225°14.0	11°23.1	3	225°23.2	12°24.2	3	225°31.3	13°23.4	3	225°38.2	14°20.6
4	240°04.1	10°21.3	4	240°14.2	11°24.0	4	240°23.3	12°25.0	4	240°31.4	13°24.2	4	240°38.3	14°21.4
5	255°04.2	10°22.2	5	255°14.3	11°24.9	5	255°23.4	12°25.8	5	255°31.5	13°25.0	5	255°38.4	14°22.2
6	270°04.4	10°23.1	6	270°14.4	11°25.7	6	270°23.5	12°26.6	6	270°31.6	13°25.8	6	270°38.5	14°22.9
7	285°04.5	10°24.0	7	285°14.6	11°26.6	7	285°23.7	12°27.5	7	285°31.7	13°26.6	7	285°38.6	14°23.7
8	300°04.7	10°24.8	8	300°14.7	11°27.4	8	300°23.8	12°28.3	8	300°31.8	13°27.4	8	300°38.6	14°24.5
9	315°04.8	10°25.7	9	315°14.8	11°28.3	9	315°23.9	12°29.2	9	315°31.9	13°28.2	9	315°38.7	14°25.3
10	330°05.0	10°26.6	10	330°15.0	11°29.2	10	330°24.0	12°30.0	10	330°32.0	13°29.0	10	330°38.8	14°26.1
11	345°05.1	10°27.5	11	345°15.1	11°30.0	11	345°24.1	12°30.8	11	345°32.1	13°29.8	11	345°38.9	14°26.8
12	0°05.2	10°28.4	12	0°15.2	11°30.9	12	0°24.2	12°31.7	12	0°32.2	13°30.6	12	0°39.0	14°27.6
13	15°05.4	10°29.2	13	15°15.4	11°31.7	13	15°24.4	12°32.5	13	15°32.3	13°31.4	13	15°39.1	14°28.4
14	30°05.5	10°30.1	14	30°15.5	11°32.6	14	30°24.5	12°33.3	14	30°32.4	13°32.2	14	30°39.2	14°29.2
15	45°05.7	10°31.0	15	45°15.6	11°33.4	15	45°24.6	12°34.2	15	45°32.5	13°33.1	15	45°39.3	14°29.9
16	60°05.8	10°31.9	16	60°15.8	11°34.3	16	60°24.7	12°35.0	16	60°32.6	13°33.9	16	60°39.3	14°30.7
17	75°06.0	10°32.8	17	75°15.9	11°35.2	17	75°24.8	12°35.8	17	75°32.7	13°34.7	17	75°39.4	14°31.5
18	90°06.1	10°33.6	18	90°16.0	11°36.0	18	90°24.9	12°36.7	18	90°32.8	13°35.5	18	90°39.5	14°32.3
19	105°06.3	10°34.5	19	105°16.1	11°36.9	19	105°25.1	12°37.5	19	105°32.9	13°36.3	19	105°39.6	14°33.0
20	120°06.4	10°35.4	20	120°16.3	11°37.7	20	120°25.2	12°38.3	20	120°33.0	13°37.1	20	120°39.7	14°33.8
21	135°06.5	10°36.3	21	135°16.4	11°38.6	21	135°25.3	12°39.2	21	135°33.1	13°37.9	21	135°39.8	14°34.6
22	150°06.7	10°37.1	22	150°16.5	11°39.4	22	150°25.4	12°40.0	22	150°33.2	13°38.7	22	150°39.8	14°35.4
23	165°06.8	10°38.0	23	165°16.7	11°40.3	23	165°25.5	12°40.8	23	165°33.3	13°39.5	23	165°39.9	14°36.1
	SD.=15.9	d=0.9		SD.=15.9	d=0.9		SD.=15.9	d=0.8		SD.=15.9	d=0.8		SD.=15.9	d=0.8

18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec	30	GHA	Dec
0	180°07.0	10°38.9	0	180°16.8	11°41.1	0	180°25.6	12°41.6	0	180°33.4	13°40.3	0	180°40.0	14°36.9
1	195°07.1	10°39.8	1	195°16.9	11°42.0	1	195°25.8	12°42.5	1	195°33.5	13°41.1	1	195°40.1	14°37.7
2	210°07.3	10°40.6	2	210°17.1	11°42.8	2	210°25.9	12°43.3	2	210°33.6	13°41.9	2	210°40.2	14°38.4
3	225°07.4	10°41.5	3	225°17.2	11°43.7	3	225°26.0	12°44.1	3	225°33.7	13°42.7	3	225°40.3	14°39.2
4	240°07.5	10°42.4	4	240°17.3	11°44.5	4	240°26.1	12°44.9	4	240°33.8	13°43.5	4	240°40.3	14°40.0
5	255°07.7	10°43.3	5	255°17.4	11°45.4	5	255°26.2	12°45.8	5	255°33.9	13°44.3	5	255°40.4	14°40.8
6	270°07.8	10°44.1	6	270°17.6	11°46.2	6	270°26.3	12°46.6	6	270°34.0	13°45.1	6	270°40.5	14°41.5
7	285°08.0	10°45.0	7	285°17.7	11°47.1	7	285°26.4	12°47.4	7	285°34.1	13°45.9	7	285°40.6	14°42.3
8	300°08.1	10°45.9	8	300°17.8	11°47.9	8	300°26.6	12°48.2	8	300°34.2	13°46.7	8	300°40.7	14°43.1
9	315°08.3	10°46.8	9	315°18.0	11°48.8	9	315°26.7	12°49.1	9	315°34.3	13°47.5	9	315°40.8	14°43.8
10	330°08.4	10°47.6	10	330°18.1	11°49.6	10	330°26.8	12°49.9	10	330°34.4	13°48.3	10	330°40.8	14°44.6
11	345°08.5	10°48.5	11	345°18.2	11°50.5	11	345°26.9	12°50.7	11	345°34.5	13°49.1	11	345°40.9	14°45.4
12	0°08.7	10°49.4	12	0°18.3	11°51.3	12	0°27.0	12°51.5	12	0°34.6	13°49.9	12	0°41.0	14°46.1
13	15°08.8	10°50.3	13	15°18.5	11°52.2	13	15°27.1	12°52.4	13	15°34.7	13°50.7	13	15°41.1	14°46.9
14	30°09.0	10°51.1	14	30°18.6	11°53.0	14	30°27.2	12°53.2	14	30°34.8	13°51.4	14	30°41.2	14°47.7
15	45°09.1	10°52.0	15	45°18.7	11°53.9	15	45°27.4	12°54.0	15	45°34.9	13°52.2	15	45°41.2	14°48.4
16	60°09.2	10°52.9	16	60°18.9	11°54.7	16	60°27.5	12°54.8	16	60°35.0	13°53.0	16	60°41.3	14°49.2
17	75°09.4	10°53.7	17	75°19.0	11°55.6	17	75°27.6	12°55.7	17	75°35.1	13°53.8	17	75°41.4	14°50.0
18	90°09.5	10°54.6	18	90°19.1	11°56.4	18	90°27.7	12°56.5	18	90°35.2	13°54.6	18	90°41.5	14°50.7
19	105°09.7	10°55.5	19	105°19.2	11°57.3	19	105°27.8	12°57.3	19	105°35.3	13°55.4	19	105°41.6	14°51.5
20	120°09.8	10°56.3	20	120°19.4	11°58.1	20	120°27.9	12°58.1	20	120°35.4	13°56.2	20	120°41.6	14°52.3
21	135°09.9	10°57.2	21	135°19.5	11°59.0	21	135°28.0	12°58.9	21	135°35.5	13°57.0	21	135°41.7	14°53.0
22	150°10.1	10°58.1	22	150°19.6	11°59.8	22	150°28.1	12°59.8	22	150°35.6	13°57.8	22	150°41.8	14°53.8
23	165°10.2	10°59.0	23	165°19.7	12°00.7	23	165°28.2	13°00.6	23</					

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	180°41.9	14°55.3	0	180°46.9	15°49.0	0	180°50.7	16°40.4	0	180°53.2	17°29.2	0	180°54.4	18°15.4
1	195°42.0	14°56.1	1	195°47.0	15°49.7	1	195°50.7	16°41.1	1	195°53.2	17°29.9	1	195°54.4	18°16.1
2	210°42.1	14°56.8	2	210°47.1	15°50.5	2	210°50.8	16°41.8	2	210°53.2	17°30.6	2	210°54.4	18°16.7
3	225°42.2	14°57.6	3	225°47.1	15°51.2	3	225°50.8	16°42.5	3	225°53.2	17°31.2	3	225°54.4	18°17.3
4	240°42.3	14°58.3	4	240°47.2	15°51.9	4	240°50.8	16°43.2	4	240°53.3	17°31.9	4	240°54.4	18°17.9
5	255°42.3	14°59.1	5	255°47.2	15°52.7	5	255°50.9	16°43.9	5	255°53.3	17°32.5	5	255°54.4	18°18.6
6	270°42.4	14°59.9	6	270°47.3	15°53.4	6	270°50.9	16°44.5	6	270°53.3	17°33.2	6	270°54.4	18°19.2
7	285°42.5	15°00.6	7	285°47.4	15°54.1	7	285°51.0	16°45.2	7	285°53.3	17°33.8	7	285°54.4	18°19.8
8	300°42.6	15°01.4	8	300°47.4	15°54.8	8	300°51.0	16°45.9	8	300°53.3	17°34.5	8	300°54.4	18°20.4
9	315°42.6	15°02.1	9	315°47.5	15°55.6	9	315°51.0	16°46.6	9	315°53.4	17°35.2	9	315°54.5	18°21.0
10	330°42.7	15°02.9	10	330°47.5	15°56.3	10	330°51.1	16°47.3	10	330°53.4	17°35.8	10	330°54.5	18°21.6
11	345°42.8	15°03.7	11	345°47.6	15°57.0	11	345°51.1	16°48.0	11	345°53.4	17°36.5	11	345°54.5	18°22.3
12	0°42.9	15°04.4	12	0°47.6	15°57.7	12	0°51.2	16°48.7	12	0°53.4	17°37.1	12	0°54.5	18°22.9
13	15°42.9	15°05.2	13	15°47.7	15°58.5	13	15°51.2	16°49.4	13	15°53.5	17°37.8	13	15°54.5	18°23.5
14	30°43.0	15°05.9	14	30°47.8	15°59.2	14	30°51.2	16°50.1	14	30°53.5	17°38.4	14	30°54.5	18°24.1
15	45°43.1	15°06.7	15	45°47.8	15°59.9	15	45°51.3	16°50.8	15	45°53.5	17°39.1	15	45°54.5	18°24.7
16	60°43.2	15°07.4	16	60°47.9	16°00.6	16	60°51.3	16°51.5	16	60°53.5	17°39.7	16	60°54.5	18°25.3
17	75°43.2	15°08.2	17	75°47.9	16°01.4	17	75°51.4	16°52.1	17	75°53.6	17°40.4	17	75°54.5	18°26.0
18	90°43.3	15°08.9	18	90°48.0	16°02.1	18	90°51.4	16°52.8	18	90°53.6	17°41.0	18	90°54.5	18°26.6
19	105°43.4	15°09.7	19	105°48.0	16°02.8	19	105°51.4	16°53.5	19	105°53.6	17°41.7	19	105°54.5	18°27.2
20	120°43.5	15°10.5	20	120°48.1	16°03.5	20	120°51.5	16°54.2	20	120°53.6	17°42.3	20	120°54.5	18°27.8
21	135°43.5	15°11.2	21	135°48.2	16°04.2	21	135°51.5	16°54.9	21	135°53.6	17°43.0	21	135°54.5	18°28.4
22	150°43.6	15°12.0	22	150°48.2	16°05.0	22	150°51.6	16°55.6	22	150°53.7	17°43.6	22	150°54.5	18°29.0
23	165°43.7	15°12.7	23	165°48.3	16°05.7	23	165°51.6	16°56.3	23	165°53.7	17°44.3	23	165°54.5	18°29.6
	SD.=15.9	d=0.8		SD.=15.9	d=0.7		SD.=15.9	d=0.7		SD.=15.8	d=0.7		SD.=15.8	d=0.6

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	180°43.7	15°13.5	0	180°48.3	16°06.4	0	180°51.6	16°56.9	0	180°53.7	17°44.9	0	180°54.5	18°30.2
1	195°43.8	15°14.2	1	195°48.4	16°07.1	1	195°51.7	16°57.6	1	195°53.7	17°45.6	1	195°54.5	18°30.8
2	210°43.9	15°15.0	2	210°48.4	16°07.8	2	210°51.7	16°58.3	2	210°53.7	17°46.2	2	210°54.5	18°31.5
3	225°44.0	15°15.7	3	225°48.5	16°08.6	3	225°51.7	16°59.0	3	225°53.8	17°46.9	3	225°54.5	18°32.1
4	240°44.0	15°16.5	4	240°48.5	16°09.3	4	240°51.8	16°59.7	4	240°53.8	17°47.5	4	240°54.5	18°32.7
5	255°44.1	15°17.2	5	255°48.6	16°10.0	5	255°51.8	17°00.4	5	255°53.8	17°48.2	5	255°54.5	18°33.3
6	270°44.2	15°18.0	6	270°48.6	16°10.7	6	270°51.9	17°01.0	6	270°53.8	17°48.8	6	270°54.5	18°33.9
7	285°44.2	15°18.7	7	285°48.7	16°11.4	7	285°51.9	17°01.7	7	285°53.8	17°49.5	7	285°54.5	18°34.5
8	300°44.3	15°19.5	8	300°48.7	16°12.1	8	300°51.9	17°02.4	8	300°53.9	17°50.1	8	300°54.5	18°35.1
9	315°44.4	15°20.2	9	315°48.8	16°12.9	9	315°52.0	17°03.1	9	315°53.9	17°50.8	9	315°54.5	18°35.7
10	330°44.5	15°21.0	10	330°48.9	16°13.6	10	330°52.0	17°03.8	10	330°53.9	17°51.4	10	330°54.5	18°36.3
11	345°44.5	15°21.7	11	345°48.9	16°14.3	11	345°52.0	17°04.5	11	345°53.9	17°52.0	11	345°54.5	18°36.9
12	0°44.6	15°22.4	12	0°49.0	16°15.0	12	0°52.1	17°05.1	12	0°53.9	17°52.7	12	0°54.5	18°37.5
13	15°44.7	15°23.2	13	15°49.0	16°15.7	13	15°52.1	17°05.8	13	15°53.9	17°53.3	13	15°54.5	18°38.1
14	30°44.7	15°23.9	14	30°49.1	16°16.4	14	30°52.1	17°06.5	14	30°54.0	17°54.0	14	30°54.5	18°38.7
15	45°44.8	15°24.7	15	45°49.1	16°17.1	15	45°52.2	17°07.2	15	45°54.0	17°54.6	15	45°54.5	18°39.3
16	60°44.9	15°25.4	16	60°49.2	16°17.9	16	60°52.2	17°07.8	16	60°54.0	17°55.2	16	60°54.5	18°39.9
17	75°44.9	15°26.2	17	75°49.2	16°18.6	17	75°52.2	17°08.5	17	75°54.0	17°55.9	17	75°54.5	18°40.5
18	90°45.0	15°26.9	18	90°49.3	16°19.3	18	90°52.3	17°09.2	18	90°54.0	17°56.5	18	90°54.5	18°41.1
19	105°45.1	15°27.7	19	105°49.3	16°20.0	19	105°52.3	17°09.9	19	105°54.0	17°57.2	19	105°54.5	18°41.7
20	120°45.1	15°28.4	20	120°49.4	16°20.7	20	120°52.3	17°10.5	20	120°54.1	17°57.8	20	120°54.5	18°42.3
21	135°45.2	15°29.1	21	135°49.4	16°21.4	21	135°52.4	17°11.2	21	135°54.1	17°58.4	21	135°54.5	18°42.9
22	150°45.3	15°29.9	22	150°49.5	16°22.1	22	150°52.4	17°11.9	22	150°54.1	17°59.1	22	150°54.5	18°43.5
23	165°45.3	15°30.6	23	165°49.5	16°22.8	23	165°52.4	17°12.6	23	165°54.1	17°59.7	23	165°54.5	18°44.1
	SD.=15.9	d=0.8		SD.=15.9	d=0.7		SD.=15.8	d=0.7		SD.=15.8	d=0.6		SD.=15.8	d=0.6

03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec	15	GHA	Dec
0	180°45.4	15°31.4	0	180°49.6	16°23.5	0	180°52.5	17°13.2	0	180°54.1	18°00.3	0	180°54.5	18°44.7
1	195°45.5	15°32.1	1	195°49.6	16°24.2	1	195°52.5	17°13.9	1	195°54.1	18°01.0	1	195°54.5	18°45.3
2	210°45.5	15°32.9	2	210°49.7	16°24.9	2	210°52.5	17°14.6	2	210°54.1	18°01.6	2	210°54.5	18°45.9
3	225°45.6	15°33.6	3	225°49.7	16°25.7	3	225°52.6	17°15.3	3	225°54.2	18°02.3	3	225°54.5	18°46.5
4	240°45.7	15°34.3	4	240°49.8	16°26.4	4	240°52.6	17°15.9	4	240°54.2	18°02.9	4	240°54.5	18°47.1
5	255°45.7	15°35.1	5	255°49.8	16°27.1	5	255°52.6	17°16.6	5	255°54.2	18°03.5	5	255°54.5	18°47.7
6	270°45.8	15°35.8	6	270°49.9	16°27.8	6	270°52.6	17°17.3	6	270°54.2	18°04.2	6	270°54.5	18°48.3
7	285°45.9	15°36.5	7	285°49.9	16°28.5	7	285°52.7	17°17.9	7	285°54.2	18°04.8	7	285°54.5	18°48.9
8	300°45.9	15°37.3	8	300°49.9	16°29.2	8	300°52.7	17°18.6	8	300°54.2	18°05.4	8	300°54.5	18°49.5
9	315°46.0	15°38.0	9	315°50.0	16°29.9	9	315°52.7	17°19.3	9	315°54.2	18°06.0	9	315°54.5	18°50.1
10	330°46.1	15°38.8	10	330°50.0	16°30.6	10	330°52.8	17°19.9	10	330°54.2	18°06.7	10	330°54.5	18°50.7
11	345°46.1	15°39.5	11	345°50.1	16°31.3	11	345°52.8	17°20.6	11	345°54.3	18°07.3	11	345°54.5	18°51.2
12	0°46.2	15°40.2	12	0°50.1	16°32.0	12	0°52.8	17°21.3	12	0°54.3	18°07.9	12	0°54.5	18°51.8
13	15°46.3	15°41.0	13	15°50.2	16°32.7	13	15°52.9	17°21.9	13	15°54.3	18°08.6	13	15°54.5	18°52.4
14	30°46.3	15°41.7	14	30°50.2	16°33.4	14	30°52.9	17°22.6	14	30°54.3	18°09.2	14	30°54.5	18°53.0
15	45°46.4	15°42.4	15	45°50.3	16°34.1	15	45°52.9	17°23.3	15	45°54.3	18°09.8	15	45°54.5	18°53.6
16	60°46.4	15°43.2	16	60°50.3	16°34.8	16	60°52.9	17°23.9	16	60°54.3	18°10.4	16	60°54.5	18°54.2
17	75°46.5	15°43.9	17	75°50.4	16°35.5	17	75°53.0	17°24.6	17	75°54.3	18°11.1	17	75°54.4	18°54.8
18	90°46.6	15°44.6	18	90°50.4	16°36.2	18	90°53.0	17°25.3	18	90°54.3	18°11.7	18	90°54.4	18°55.4
19	105°46.6	15°45.4	19	105°50.4	16°36.9	19	105°53.0	17°25.9	19	105°54.3	18°12.3	19	105°54.4	18°56.0
20	120°46.7	15°46.1	20	120°50.5	16°37.6	20	120°53.0	17°26.6	20	120°54.4	18°13.0	20	120°54.4	18°56.5
21	135°46.7	15°46.8	21	135°50.5	16°38.3	21	135°53.1	17°27.3	21	135°54.4	18°13.6	21	135°54.4	18°57.1
22	150°46.8	15°47.6	22	150°50.6	16°39.0	22	150°53.1	17°27.9	22	150°54.4	18°14.2	22	150°54.4	18°57.7
23	165°46.9	15°48.3	23	165°50.6	16°39.7	23	165°53.1	17°28.6	23	165°54.4	18°14.8	23	165°54.4	18°58.3
	SD.=15.9</													

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	180°54.4	18°58.9	0	180°53.1	19°39.4	0	180°50.7	20°16.9	0	180°47.0	20°51.3	0	180°42.1	21°22.5
1	195°54.4	18°59.5	1	195°53.1	19°39.9	1	195°50.6	20°17.4	1	195°46.9	20°51.8	1	195°42.0	21°22.9
2	210°54.4	19°00.0	2	210°53.1	19°40.5	2	210°50.6	20°17.9	2	210°46.9	20°52.2	2	210°42.0	21°23.3
3	225°54.4	19°00.6	3	225°53.1	19°41.0	3	225°50.5	20°18.4	3	225°46.8	20°52.7	3	225°41.9	21°23.7
4	240°54.4	19°01.2	4	240°53.0	19°41.6	4	240°50.5	20°18.9	4	240°46.7	20°53.1	4	240°41.8	21°24.1
5	255°54.3	19°01.8	5	255°53.0	19°42.1	5	255°50.4	20°19.4	5	255°46.7	20°53.6	5	255°41.7	21°24.5
6	270°54.3	19°02.4	6	270°53.0	19°42.6	6	270°50.4	20°19.9	6	270°46.6	20°54.0	6	270°41.7	21°25.0
7	285°54.3	19°02.9	7	285°53.0	19°43.2	7	285°50.4	20°20.4	7	285°46.5	20°54.5	7	285°41.6	21°25.4
8	300°54.3	19°03.5	8	300°52.9	19°43.7	8	300°50.3	20°20.9	8	300°46.5	20°55.0	8	300°41.5	21°25.8
9	315°54.3	19°04.1	9	315°52.9	19°44.3	9	315°50.3	20°21.4	9	315°46.4	20°55.4	9	315°41.4	21°26.2
10	330°54.3	19°04.7	10	330°52.9	19°44.8	10	330°50.2	20°21.9	10	330°46.4	20°55.9	10	330°41.4	21°26.6
11	345°54.3	19°05.3	11	345°52.8	19°45.3	11	345°50.2	20°22.4	11	345°46.3	20°56.3	11	345°41.3	21°27.0
12	0°54.3	19°05.8	12	0°52.8	19°45.9	12	0°50.1	20°22.9	12	0°46.2	20°56.7	12	0°41.2	21°27.4
13	15°54.3	19°06.4	13	15°52.8	19°46.4	13	15°50.1	20°23.4	13	15°46.2	20°57.2	13	15°41.1	21°27.8
14	30°54.2	19°07.0	14	30°52.8	19°46.9	14	30°50.0	20°23.9	14	30°46.1	20°57.6	14	30°41.0	21°28.2
15	45°54.2	19°07.6	15	45°52.7	19°47.5	15	45°50.0	20°24.4	15	45°46.1	20°58.1	15	45°41.0	21°28.6
16	60°54.2	19°08.1	16	60°52.7	19°48.0	16	60°49.9	20°24.8	16	60°46.0	20°58.5	16	60°40.9	21°29.0
17	75°54.2	19°08.7	17	75°52.7	19°48.5	17	75°49.9	20°25.3	17	75°45.9	20°59.0	17	75°40.8	21°29.4
18	90°54.2	19°09.3	18	90°52.6	19°49.1	18	90°49.9	20°25.8	18	90°45.9	20°59.4	18	90°40.7	21°29.8
19	105°54.2	19°09.9	19	105°52.6	19°49.6	19	105°49.8	20°26.3	19	105°45.8	20°59.9	19	105°40.7	21°30.2
20	120°54.2	19°10.4	20	120°52.6	19°50.1	20	120°49.8	20°26.8	20	120°45.7	21°00.3	20	120°40.6	21°30.6
21	135°54.2	19°11.0	21	135°52.5	19°50.7	21	135°49.7	20°27.3	21	135°45.7	21°00.8	21	135°40.5	21°31.0
22	150°54.1	19°11.6	22	150°52.5	19°51.2	22	150°49.7	20°27.8	22	150°45.6	21°01.2	22	150°40.4	21°31.4
23	165°54.1	19°12.1	23	165°52.5	19°51.7	23	165°49.6	20°28.3	23	165°45.5	21°01.6	23	165°40.3	21°31.8
	SD.=15.8	d=0.6		SD.=15.8	d=0.5		SD.=15.8	d=0.5		SD.=15.8	d=0.5		SD.=15.8	d=0.4

17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	180°54.1	19°12.7	0	180°52.5	19°52.3	0	180°49.6	20°28.7	0	180°45.5	21°02.1	0	180°40.3	21°32.2
1	195°54.1	19°13.3	1	195°52.4	19°52.8	1	195°49.5	20°29.2	1	195°45.4	21°02.5	1	195°40.2	21°32.6
2	210°54.1	19°13.9	2	210°52.4	19°53.3	2	210°49.5	20°29.7	2	210°45.3	21°03.0	2	210°40.1	21°33.0
3	225°54.1	19°14.4	3	225°52.4	19°53.8	3	225°49.4	20°30.2	3	225°45.3	21°03.4	3	225°40.0	21°33.3
4	240°54.1	19°15.0	4	240°52.3	19°54.4	4	240°49.4	20°30.7	4	240°45.2	21°03.8	4	240°39.9	21°33.7
5	255°54.0	19°15.6	5	255°52.3	19°54.9	5	255°49.3	20°31.2	5	255°45.2	21°04.3	5	255°39.9	21°34.1
6	270°54.0	19°16.1	6	270°52.3	19°55.4	6	270°49.3	20°31.6	6	270°45.1	21°04.7	6	270°39.8	21°34.5
7	285°54.0	19°16.7	7	285°52.2	19°55.9	7	285°49.2	20°32.1	7	285°45.0	21°05.2	7	285°39.7	21°34.9
8	300°54.0	19°17.3	8	300°52.2	19°56.5	8	300°49.2	20°32.6	8	300°45.0	21°05.6	8	300°39.6	21°35.3
9	315°54.0	19°17.8	9	315°52.2	19°57.0	9	315°49.1	20°33.1	9	315°44.9	21°06.0	9	315°39.5	21°35.7
10	330°54.0	19°18.4	10	330°52.1	19°57.5	10	330°49.1	20°33.6	10	330°44.8	21°06.5	10	330°39.4	21°36.1
11	345°53.9	19°18.9	11	345°52.1	19°58.0	11	345°49.0	20°34.0	11	345°44.8	21°06.9	11	345°39.4	21°36.5
12	0°53.9	19°19.5	12	0°52.1	19°58.5	12	0°49.0	20°34.5	12	0°44.7	21°07.3	12	0°39.3	21°36.9
13	15°53.9	19°20.1	13	15°52.0	19°59.1	13	15°48.9	20°35.0	13	15°44.6	21°07.8	13	15°39.2	21°37.2
14	30°53.9	19°20.6	14	30°52.0	19°59.6	14	30°48.9	20°35.5	14	30°44.5	21°08.2	14	30°39.1	21°37.6
15	45°53.9	19°21.2	15	45°52.0	20°00.1	15	45°48.8	20°36.0	15	45°44.5	21°08.6	15	45°39.0	21°38.0
16	60°53.8	19°21.8	16	60°51.9	20°00.6	16	60°48.8	20°36.4	16	60°44.4	21°09.1	16	60°38.9	21°38.4
17	75°53.8	19°22.3	17	75°51.9	20°01.1	17	75°48.7	20°36.9	17	75°44.3	21°09.5	17	75°38.9	21°38.8
18	90°53.8	19°22.9	18	90°51.8	20°01.7	18	90°48.7	20°37.4	18	90°44.3	21°09.9	18	90°38.8	21°39.2
19	105°53.8	19°23.4	19	105°51.8	20°02.2	19	105°48.6	20°37.9	19	105°44.2	21°10.3	19	105°38.7	21°39.5
20	120°53.8	19°24.0	20	120°51.8	20°02.7	20	120°48.5	20°38.3	20	120°44.1	21°10.8	20	120°38.6	21°39.9
21	135°53.8	19°24.6	21	135°51.7	20°03.2	21	135°48.5	20°38.8	21	135°44.1	21°11.2	21	135°38.5	21°40.3
22	150°53.7	19°25.1	22	150°51.7	20°03.7	22	150°48.4	20°39.3	22	150°44.0	21°11.6	22	150°38.4	21°40.7
23	165°53.7	19°25.7	23	165°51.7	20°04.2	23	165°48.4	20°39.7	23	165°43.9	21°12.1	23	165°38.4	21°41.1
	SD.=15.8	d=0.6		SD.=15.8	d=0.5		SD.=15.8	d=0.5		SD.=15.8	d=0.4		SD.=15.8	d=0.4

18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec	30	GHA	Dec
0	180°53.7	19°26.2	0	180°51.6	20°04.8	0	180°48.3	20°40.2	0	180°43.9	21°12.5	0	180°38.3	21°41.5
1	195°53.7	19°26.8	1	195°51.6	20°05.3	1	195°48.3	20°40.7	1	195°43.8	21°12.9	1	195°38.2	21°41.8
2	210°53.7	19°27.3	2	210°51.6	20°05.8	2	210°48.2	20°41.2	2	210°43.7	21°13.3	2	210°38.1	21°42.2
3	225°53.6	19°27.9	3	225°51.5	20°06.3	3	225°48.2	20°41.6	3	225°43.6	21°13.8	3	225°38.0	21°42.6
4	240°53.6	19°28.4	4	240°51.5	20°06.8	4	240°48.1	20°42.1	4	240°43.6	21°14.2	4	240°37.9	21°43.0
5	255°53.6	19°29.0	5	255°51.4	20°07.3	5	255°48.1	20°42.6	5	255°43.5	21°14.6	5	255°37.9	21°43.3
6	270°53.6	19°29.6	6	270°51.4	20°07.8	6	270°48.0	20°43.0	6	270°43.4	21°15.0	6	270°37.8	21°43.7
7	285°53.5	19°30.1	7	285°51.4	20°08.3	7	285°47.9	20°43.5	7	285°43.4	21°15.4	7	285°37.7	21°44.1
8	300°53.5	19°30.7	8	300°51.3	20°08.8	8	300°47.9	20°44.0	8	300°43.3	21°15.9	8	300°37.6	21°44.5
9	315°53.5	19°31.2	9	315°51.3	20°09.4	9	315°47.8	20°44.4	9	315°43.2	21°16.3	9	315°37.5	21°44.8
10	330°53.5	19°31.8	10	330°51.2	20°09.9	10	330°47.8	20°44.9	10	330°43.1	21°16.7	10	330°37.4	21°45.2
11	345°53.5	19°32.3	11	345°51.2	20°10.4	11	345°47.7	20°45.4	11	345°43.1	21°17.1	11	345°37.3	21°45.6
12	0°53.4	19°32.9	12	0°51.2	20°10.9	12	0°47.7	20°45.8	12	0°43.0	21°17.5	12	0°37.2	21°46.0
13	15°53.4	19°33.4	13	15°51.1	20°11.4	13	15°47.6	20°46.3	13	15°42.9	21°18.0	13	15°37.2	21°46.3
14	30°53.4	19°34.0	14	30°51.1	20°11.9	14	30°47.6	20°46.7	14	30°42.9	21°18.4	14	30°37.1	21°46.7
15	45°53.4	19°34.5	15	45°51.0	20°12.4	15	45°47.5	20°47.2	15	45°42.8	21°18.8	15	45°37.0	21°47.1
16	60°53.3	19°35.1	16	60°51.0	20°12.9	16	60°47.4	20°47.7	16	60°42.7	21°19.2	16	60°36.9	21°47.4
17	75°53.3	19°35.6	17	75°51.0	20°13.4	17	75°47.4	20°48.1	17	75°42.6	21°19.6	17	75°36.8	21°47.8
18	90°53.3	19°36.1	18	90°50.9	20°13.9	18	90°47.3	20°48.6	18	90°42.6	21°20.0	18	90°36.7	21°48.2
19	105°53.3	19°36.7	19	105°50.9	20°14.4	19	105°47.3	20°49.0	19	105°42.5	21°20.4	19	105°36.6	21°48.5
20	120°53.2	19°37.2	20	120°50.8	20°14.9	20	120°47.2	20°49.5	20	120°42.4	21°20.9	20	120°36.5	21°48.9
21	135°53.2	19°37.8	21	135°50.8	20°15.4	21	135°47.1	20°50.0	21	135°42.3	21°21.3	21	135°36.5	21°49.3
22	150°53.2	19°38.3	22	150°50.7	20°15.9	22	150°47.1	20°50.4	22	150°42.3	21°21.7	22	150°36.4	21°49.6
23	165°53.2	19°38.9	23	165°50.7	20°16.4	23	165°47.0	20°50.9	23	165°42.2	21°22.1			

31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	180°36.2	21°50.4	0	180°29.3	22°14.8	0	180°21.5	22°35.8	0	180°13.1	22°53.2	0	180°04.1	23°06.9
1	195°36.1	21°50.7	1	195°29.2	22°15.1	1	195°21.4	22°36.0	1	195°13.0	22°53.4	1	195°04.0	23°07.1
2	210°36.0	21°51.1	2	210°29.1	22°15.4	2	210°21.3	22°36.3	2	210°12.9	22°53.6	2	210°03.9	23°07.2
3	225°35.9	21°51.5	3	225°29.0	22°15.8	3	225°21.2	22°36.6	3	225°12.7	22°53.8	3	225°03.8	23°07.4
4	240°35.8	21°51.8	4	240°28.9	22°16.1	4	240°21.1	22°36.8	4	240°12.6	22°54.0	4	240°03.6	23°07.6
5	255°35.7	21°52.2	5	255°28.8	22°16.4	5	255°21.0	22°37.1	5	255°12.5	22°54.2	5	255°03.5	23°07.7
6	270°35.6	21°52.5	6	270°28.7	22°16.7	6	270°20.9	22°37.3	6	270°12.4	22°54.4	6	270°03.4	23°07.9
7	285°35.6	21°52.9	7	285°28.6	22°17.0	7	285°20.7	22°37.6	7	285°12.3	22°54.6	7	285°03.3	23°08.0
8	300°35.5	21°53.3	8	300°28.5	22°17.3	8	300°20.6	22°37.9	8	300°12.1	22°54.9	8	300°03.1	23°08.2
9	315°35.4	21°53.6	9	315°28.4	22°17.6	9	315°20.5	22°38.1	9	315°12.0	22°55.1	9	315°03.0	23°08.4
10	330°35.3	21°54.0	10	330°28.2	22°17.9	10	330°20.4	22°38.4	10	330°11.9	22°55.3	10	330°02.9	23°08.5
11	345°35.2	21°54.3	11	345°28.1	22°18.2	11	345°20.3	22°38.7	11	345°11.8	22°55.5	11	345°02.7	23°08.7
12	0°35.1	21°54.7	12	0°28.0	22°18.5	12	0°20.2	22°38.9	12	0°11.6	22°55.7	12	0°02.6	23°08.8
13	15°35.0	21°55.0	13	15°27.9	22°18.9	13	15°20.1	22°39.2	13	15°11.5	22°55.9	13	15°02.5	23°09.0
14	30°34.9	21°55.4	14	30°27.8	22°19.2	14	30°19.9	22°39.4	14	30°11.4	22°56.1	14	30°02.4	23°09.2
15	45°34.8	21°55.7	15	45°27.7	22°19.5	15	45°19.8	22°39.7	15	45°11.3	22°56.3	15	45°02.2	23°09.3
16	60°34.7	21°56.1	16	60°27.6	22°19.8	16	60°19.7	22°39.9	16	60°11.2	22°56.5	16	60°02.1	23°09.5
17	75°34.6	21°56.4	17	75°27.5	22°20.1	17	75°19.6	22°40.2	17	75°11.0	22°56.7	17	75°02.0	23°09.6
18	90°34.5	21°56.8	18	90°27.4	22°20.4	18	90°19.5	22°40.4	18	90°10.9	22°56.9	18	90°01.8	23°09.8
19	105°34.5	21°57.2	19	105°27.3	22°20.7	19	105°19.4	22°40.7	19	105°10.8	22°57.1	19	105°01.7	23°09.9
20	120°34.4	21°57.5	20	120°27.2	22°21.0	20	120°19.3	22°41.0	20	120°10.7	22°57.3	20	120°01.6	23°10.1
21	135°34.3	21°57.9	21	135°27.1	22°21.3	21	135°19.1	22°41.2	21	135°10.5	22°57.5	21	135°01.5	23°10.2
22	150°34.2	21°58.2	22	150°27.0	22°21.6	22	150°19.0	22°41.5	22	150°10.4	22°57.7	22	150°01.3	23°10.4
23	165°34.1	21°58.5	23	165°26.9	22°21.9	23	165°18.9	22°41.7	23	165°10.3	22°57.9	23	165°01.2	23°10.5
	SD.=15.8	d=0.4		SD.=15.8	d=0.3		SD.=15.8	d=0.3		SD.=15.8	d=0.2		SD.=15.8	d=0.2

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	180°34.0	21°58.9	0	180°26.8	22°22.2	0	180°18.8	22°42.0	0	180°10.2	22°58.1	0	180°01.1	23°10.7
1	195°33.9	21°59.2	1	195°26.7	22°22.5	1	195°18.7	22°42.2	1	195°10.0	22°58.3	1	195°00.9	23°10.8
2	210°33.8	21°59.6	2	210°26.6	22°22.8	2	210°18.6	22°42.5	2	210°09.9	22°58.5	2	210°00.8	23°11.0
3	225°33.7	21°59.9	3	225°26.5	22°23.1	3	225°18.4	22°42.7	3	225°09.8	22°58.7	3	225°00.7	23°11.1
4	240°33.6	22°00.3	4	240°26.4	22°23.4	4	240°18.3	22°43.0	4	240°09.7	22°58.9	4	240°00.6	23°11.3
5	255°33.5	22°00.6	5	255°26.3	22°23.7	5	255°18.2	22°43.2	5	255°09.6	22°59.1	5	255°00.4	23°11.4
6	270°33.4	22°01.0	6	270°26.1	22°24.0	6	270°18.1	22°43.4	6	270°09.4	22°59.3	6	270°00.3	23°11.6
7	285°33.3	22°01.3	7	285°26.0	22°24.3	7	285°18.0	22°43.7	7	285°09.3	22°59.5	7	285°00.2	23°11.7
8	300°33.2	22°01.7	8	300°25.9	22°24.6	8	300°17.9	22°43.9	8	300°09.2	22°59.7	8	300°00.0	23°11.8
9	315°33.1	22°02.0	9	315°25.8	22°24.9	9	315°17.7	22°44.2	9	315°09.1	22°59.9	9	314°59.9	23°12.0
10	330°33.0	22°02.3	10	330°25.7	22°25.1	10	330°17.6	22°44.4	10	330°08.9	23°00.1	10	329°59.8	23°12.1
11	345°32.9	22°02.7	11	345°25.6	22°25.4	11	345°17.5	22°44.7	11	345°08.8	23°00.3	11	344°59.6	23°12.3
12	0°32.8	22°03.0	12	0°25.5	22°25.7	12	0°17.4	22°44.9	12	0°08.7	23°00.5	12	359°59.5	23°12.4
13	15°32.7	22°03.4	13	15°25.4	22°26.0	13	15°17.3	22°45.1	13	15°08.6	23°00.7	13	14°59.4	23°12.5
14	30°32.7	22°03.7	14	30°25.3	22°26.3	14	30°17.2	22°45.4	14	30°08.4	23°00.9	14	29°59.3	23°12.7
15	45°32.6	22°04.0	15	45°25.2	22°26.6	15	45°17.0	22°45.6	15	45°08.3	23°01.1	15	44°59.1	23°12.8
16	60°32.5	22°04.4	16	60°25.1	22°26.9	16	60°16.9	22°45.9	16	60°08.2	23°01.2	16	59°59.0	23°13.0
17	75°32.4	22°04.7	17	75°25.0	22°27.2	17	75°16.8	22°46.1	17	75°08.1	23°01.4	17	74°58.9	23°13.1
18	90°32.3	22°05.0	18	90°24.9	22°27.5	18	90°16.7	22°46.3	18	90°07.9	23°01.6	18	89°58.7	23°13.2
19	105°32.2	22°05.4	19	105°24.7	22°27.7	19	105°16.6	22°46.6	19	105°07.8	23°01.8	19	104°58.6	23°13.4
20	120°32.1	22°05.7	20	120°24.6	22°28.0	20	120°16.5	22°46.8	20	120°07.7	23°02.0	20	119°58.5	23°13.5
21	135°32.0	22°06.0	21	135°24.5	22°28.3	21	135°16.3	22°47.1	21	135°07.6	23°02.2	21	134°58.3	23°13.6
22	150°31.9	22°06.4	22	150°24.4	22°28.6	22	150°16.2	22°47.3	22	150°07.4	23°02.4	22	149°58.2	23°13.8
23	165°31.8	22°06.7	23	165°24.3	22°28.9	23	165°16.1	22°47.5	23	165°07.3	23°02.5	23	164°58.1	23°13.9
	SD.=15.8	d=0.3		SD.=15.8	d=0.3		SD.=15.8	d=0.2		SD.=15.8	d=0.2		SD.=15.7	d=0.1

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	180°31.7	22°07.0	0	180°24.2	22°29.2	0	180°16.0	22°47.8	0	180°07.2	23°02.7	0	179°58.0	23°14.0
1	195°31.6	22°07.4	1	195°24.1	22°29.5	1	195°15.9	22°48.0	1	195°07.1	23°02.9	1	194°57.8	23°14.2
2	210°31.5	22°07.7	2	210°24.0	22°29.7	2	210°15.7	22°48.2	2	210°06.9	23°03.1	2	209°57.7	23°14.3
3	225°31.4	22°08.0	3	225°23.9	22°30.0	3	225°15.6	22°48.5	3	225°06.8	23°03.3	3	224°57.6	23°14.4
4	240°31.3	22°08.4	4	240°23.8	22°30.3	4	240°15.5	22°48.7	4	240°06.7	23°03.5	4	239°57.4	23°14.6
5	255°31.2	22°08.7	5	255°23.6	22°30.6	5	255°15.4	22°48.9	5	255°06.6	23°03.6	5	254°57.3	23°14.7
6	270°31.1	22°09.0	6	270°23.5	22°30.9	6	270°15.3	22°49.1	6	270°06.4	23°03.8	6	269°57.2	23°14.8
7	285°31.0	22°09.4	7	285°23.4	22°31.1	7	285°15.1	22°49.4	7	285°06.3	23°04.0	7	284°57.0	23°14.9
8	300°30.9	22°09.7	8	300°23.3	22°31.4	8	300°15.0	22°49.6	8	300°06.2	23°04.2	8	299°56.9	23°15.1
9	315°30.8	22°10.0	9	315°23.2	22°31.7	9	315°14.9	22°49.8	9	315°06.0	23°04.3	9	314°56.8	23°15.2
10	330°30.7	22°10.3	10	330°23.1	22°32.0	10	330°14.8	22°50.1	10	330°05.9	23°04.5	10	329°56.6	23°15.3
11	345°30.6	22°10.7	11	345°23.0	22°32.2	11	345°14.7	22°50.3	11	345°05.8	23°04.7	11	344°56.5	23°15.4
12	0°30.5	22°11.0	12	0°22.9	22°32.5	12	0°14.5	22°50.5	12	0°05.7	23°04.9	12	359°56.4	23°15.6
13	15°30.4	22°11.3	13	15°22.8	22°32.8	13	15°14.4	22°50.7	13	15°05.5	23°05.0	13	14°56.2	23°15.7
14	30°30.3	22°11.6	14	30°22.7	22°33.1	14	30°14.3	22°51.0	14	30°05.4	23°05.2	14	29°56.1	23°15.8
15	45°30.2	22°11.9	15	45°22.5	22°33.3	15	45°14.2	22°51.2	15	45°05.3	23°05.4	15	44°56.0	23°15.9
16	60°30.1	22°12.3	16	60°22.4	22°33.6	16	60°14.1	22°51.4	16	60°05.2	23°05.6	16	59°55.9	23°16.1
17	75°30.0	22°12.6	17	75°22.3	22°33.9	17	75°13.9	22°51.6	17	75°05.0	23°05.7	17	74°55.7	23°16.2
18	90°29.9	22°12.9	18	90°22.2	22°34.2	18	90°13.8	22°51.8	18	90°04.9	23°05.9	18	89°55.6	23°16.3
19	105°29.8	22°13.2	19	105°22.1	22°34.4	19	105°13.7	22°52.1	19	105°04.8	23°06.1	19	104°55.5	23°16.4
20	120°29.7	22°13.5	20	120°22.0	22°34.7	20	120°13.6	22°52.3	20	120°04.7	23°06.2	20	119°55.3	23°16.5
21	135°29.6	22°13.9	21	135°21.9	22°35.0	21	135°13.5	22°52.5	21	135°04.5	23°06.4	21	134°55.2	23°16.6
22	150°29.5	22°14.2	22	150°21.8	22°35.2	22	150°13.3	22°52.7	22	150°04.4	23°06.6	22	149°55.1	23°16.8
23	165°29.4	22°14.5	23	165°21.6	22°35.5	23	165°13.2	22°52.9	23	165°04.3	23°06.7	23	164°54.9	23°16.9
	SD.=1													

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	179°54.8	23°17.0	0	179°45.2	23°23.4	0	179°35.5	23°26.0	0	179°25.8	23°25.0	0	179°16.2	23°20.3
1	194°54.7	23°17.1	1	194°45.1	23°23.4	1	194°35.3	23°26.1	1	194°25.6	23°25.0	1	194°16.1	23°20.2
2	209°54.5	23°17.2	2	209°44.9	23°23.5	2	209°35.2	23°26.1	2	209°25.5	23°24.9	2	209°15.9	23°20.1
3	224°54.4	23°17.3	3	224°44.8	23°23.6	3	224°35.1	23°26.1	3	224°25.4	23°24.9	3	224°15.8	23°20.0
4	239°54.3	23°17.4	4	239°44.7	23°23.6	4	239°34.9	23°26.1	4	239°25.2	23°24.8	4	239°15.7	23°19.9
5	254°54.1	23°17.6	5	254°44.5	23°23.7	5	254°34.8	23°26.1	5	254°25.1	23°24.8	5	254°15.5	23°19.8
6	269°54.0	23°17.7	6	269°44.4	23°23.7	6	269°34.7	23°26.1	6	269°25.0	23°24.8	6	269°15.4	23°19.7
7	284°53.9	23°17.8	7	284°44.3	23°23.8	7	284°34.5	23°26.1	7	284°24.8	23°24.7	7	284°15.3	23°19.6
8	299°53.7	23°17.9	8	299°44.1	23°23.9	8	299°34.4	23°26.1	8	299°24.7	23°24.7	8	299°15.2	23°19.5
9	314°53.6	23°18.0	9	314°44.0	23°23.9	9	314°34.3	23°26.1	9	314°24.5	23°24.6	9	314°15.0	23°19.4
10	329°53.5	23°18.1	10	329°43.9	23°24.0	10	329°34.1	23°26.1	10	329°24.4	23°24.6	10	329°14.9	23°19.3
11	344°53.3	23°18.2	11	344°43.7	23°24.0	11	344°34.0	23°26.1	11	344°24.3	23°24.5	11	344°14.8	23°19.2
12	359°53.2	23°18.3	12	359°43.6	23°24.1	12	359°33.8	23°26.1	12	359°24.1	23°24.5	12	359°14.6	23°19.1
13	14°53.1	23°18.4	13	14°43.4	23°24.1	13	14°33.7	23°26.1	13	14°24.0	23°24.4	13	14°14.5	23°19.0
14	29°53.0	23°18.5	14	29°43.3	23°24.2	14	29°33.6	23°26.1	14	29°23.9	23°24.4	14	29°14.4	23°18.9
15	44°52.8	23°18.6	15	44°43.2	23°24.2	15	44°33.4	23°26.1	15	44°23.7	23°24.3	15	44°14.2	23°18.8
16	59°52.7	23°18.7	16	59°43.0	23°24.3	16	59°33.3	23°26.1	16	59°23.6	23°24.3	16	59°14.1	23°18.7
17	74°52.6	23°18.8	17	74°42.9	23°24.3	17	74°33.2	23°26.1	17	74°23.5	23°24.2	17	74°14.0	23°18.6
18	89°52.4	23°18.9	18	89°42.8	23°24.4	18	89°33.0	23°26.1	18	89°23.3	23°24.2	18	89°13.9	23°18.5
19	104°52.3	23°19.0	19	104°42.6	23°24.4	19	104°32.9	23°26.1	19	104°23.2	23°24.1	19	104°13.7	23°18.4
20	119°52.2	23°19.1	20	119°42.5	23°24.5	20	119°32.8	23°26.1	20	119°23.1	23°24.1	20	119°13.6	23°18.3
21	134°52.0	23°19.2	21	134°42.4	23°24.5	21	134°32.6	23°26.1	21	134°22.9	23°24.0	21	134°13.5	23°18.2
22	149°51.9	23°19.3	22	149°42.2	23°24.6	22	149°32.5	23°26.1	22	149°22.8	23°24.0	22	149°13.3	23°18.1
23	164°51.8	23°19.4	23	164°42.1	23°24.6	23	164°32.4	23°26.1	23	164°22.7	23°23.9	23	164°13.2	23°18.0
	SD.=15.7	d=0.1		SD.=15.7	d=0.1		SD.=15.7	d=0.0		SD.=15.7	d=-0.0		SD.=15.7	d=-0.1
16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	179°51.6	23°19.5	0	179°42.0	23°24.7	0	179°32.2	23°26.1	0	179°22.5	23°23.8	0	179°13.1	23°17.9
1	194°51.5	23°19.6	1	194°41.8	23°24.7	1	194°32.1	23°26.1	1	194°22.4	23°23.8	1	194°12.9	23°17.7
2	209°51.4	23°19.7	2	209°41.7	23°24.8	2	209°32.0	23°26.1	2	209°22.3	23°23.7	2	209°12.8	23°17.6
3	224°51.2	23°19.8	3	224°41.6	23°24.8	3	224°31.8	23°26.1	3	224°22.1	23°23.7	3	224°12.7	23°17.5
4	239°51.1	23°19.9	4	239°41.4	23°24.9	4	239°31.7	23°26.1	4	239°22.0	23°23.6	4	239°12.6	23°17.4
5	254°51.0	23°20.0	5	254°41.3	23°24.9	5	254°31.5	23°26.1	5	254°21.9	23°23.5	5	254°12.4	23°17.3
6	269°50.8	23°20.1	6	269°41.2	23°24.9	6	269°31.4	23°26.1	6	269°21.7	23°23.5	6	269°12.3	23°17.2
7	284°50.7	23°20.2	7	284°41.0	23°25.0	7	284°31.3	23°26.1	7	284°21.6	23°23.4	7	284°12.2	23°17.1
8	299°50.6	23°20.3	8	299°40.9	23°25.0	8	299°31.1	23°26.0	8	299°21.5	23°23.4	8	299°12.0	23°17.0
9	314°50.4	23°20.4	9	314°40.7	23°25.1	9	314°31.0	23°26.0	9	314°21.3	23°23.3	9	314°11.9	23°16.8
10	329°50.3	23°20.5	10	329°40.6	23°25.1	10	329°30.9	23°26.0	10	329°21.2	23°23.2	10	329°11.8	23°16.7
11	344°50.2	23°20.6	11	344°40.5	23°25.1	11	344°30.7	23°26.0	11	344°21.1	23°23.2	11	344°11.7	23°16.6
12	359°50.0	23°20.6	12	359°40.3	23°25.2	12	359°30.6	23°26.0	12	359°20.9	23°23.1	12	359°11.5	23°16.5
13	14°49.9	23°20.7	13	14°40.2	23°25.2	13	14°30.5	23°26.0	13	14°20.8	23°23.0	13	14°11.4	23°16.4
14	29°49.8	23°20.8	14	29°40.1	23°25.2	14	29°30.3	23°26.0	14	29°20.7	23°23.0	14	29°11.3	23°16.3
15	44°49.6	23°20.9	15	44°39.9	23°25.3	15	44°30.2	23°25.9	15	44°20.5	23°22.9	15	44°11.1	23°16.1
16	59°49.5	23°21.0	16	59°39.8	23°25.3	16	59°30.1	23°25.9	16	59°20.4	23°22.8	16	59°11.0	23°16.0
17	74°49.4	23°21.1	17	74°39.7	23°25.4	17	74°29.9	23°25.9	17	74°20.3	23°22.8	17	74°10.9	23°15.9
18	89°49.2	23°21.2	18	89°39.5	23°25.4	18	89°29.8	23°25.9	18	89°20.2	23°22.7	18	89°10.8	23°15.8
19	104°49.1	23°21.2	19	104°39.4	23°25.4	19	104°29.7	23°25.9	19	104°20.0	23°22.6	19	104°10.6	23°15.7
20	119°49.0	23°21.3	20	119°39.3	23°25.4	20	119°29.5	23°25.9	20	119°19.9	23°22.5	20	119°10.5	23°15.5
21	134°48.8	23°21.4	21	134°39.1	23°25.5	21	134°29.4	23°25.8	21	134°19.8	23°22.5	21	134°10.4	23°15.4
22	149°48.7	23°21.5	22	149°39.0	23°25.5	22	149°29.3	23°25.8	22	149°19.6	23°22.4	22	149°10.2	23°15.3
23	164°48.6	23°21.6	23	164°38.9	23°25.5	23	164°29.1	23°25.8	23	164°19.5	23°22.3	23	164°10.1	23°15.2
	SD.=15.7	d=0.1		SD.=15.7	d=0.0		SD.=15.7	d=0.0		SD.=15.7	d=-0.1		SD.=15.7	d=-0.1
17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	179°48.4	23°21.7	0	179°38.7	23°25.6	0	179°29.0	23°25.8	0	179°19.4	23°22.3	0	179°10.0	23°15.0
1	194°48.3	23°21.7	1	194°38.6	23°25.6	1	194°28.9	23°25.7	1	194°19.2	23°22.2	1	194°09.9	23°14.9
2	209°48.2	23°21.8	2	209°38.5	23°25.6	2	209°28.7	23°25.7	2	209°19.1	23°22.1	2	209°09.7	23°14.8
3	224°48.0	23°21.9	3	224°38.3	23°25.7	3	224°28.6	23°25.7	3	224°19.0	23°22.0	3	224°09.6	23°14.7
4	239°47.9	23°22.0	4	239°38.2	23°25.7	4	239°28.4	23°25.7	4	239°18.8	23°21.9	4	239°09.5	23°14.5
5	254°47.8	23°22.0	5	254°38.0	23°25.7	5	254°28.3	23°25.6	5	254°18.7	23°21.9	5	254°09.4	23°14.4
6	269°47.6	23°22.1	6	269°37.9	23°25.7	6	269°28.2	23°25.6	6	269°18.6	23°21.8	6	269°09.2	23°14.3
7	284°47.5	23°22.2	7	284°37.8	23°25.8	7	284°28.0	23°25.6	7	284°18.4	23°21.7	7	284°09.1	23°14.1
8	299°47.4	23°22.3	8	299°37.6	23°25.8	8	299°27.9	23°25.6	8	299°18.3	23°21.6	8	299°09.0	23°14.0
9	314°47.2	23°22.3	9	314°37.5	23°25.8	9	314°27.8	23°25.5	9	314°18.2	23°21.6	9	314°08.8	23°13.9
10	329°47.1	23°22.4	10	329°37.4	23°25.8	10	329°27.6	23°25.5	10	329°18.0	23°21.5	10	329°08.7	23°13.7
11	344°46.9	23°22.5	11	344°37.2	23°25.8	11	344°27.5	23°25.5	11	344°17.9	23°21.4	11	344°08.6	23°13.6
12	359°46.8	23°22.6	12	359°37.1	23°25.9	12	359°27.4	23°25.4	12	359°17.8	23°21.3	12	359°08.5	23°13.5
13	14°46.7	23°22.6	13	14°37.0	23°25.9	13	14°27.2	23°25.4	13	14°17.6	23°21.2	13	14°08.3	23°13.3
14	29°46.5	23°22.7	14	29°36.8	23°25.9	14	29°27.1	23°25.4	14	29°17.5	23°21.1	14	29°08.2	23°13.2
15	44°46.4	23°22.8	15	44°36.7	23°25.9	15	44°27.0	23°25.3	15	44°17.4	23°21.1	15	44°08.1	23°13.1
16	59°46.3	23°22.8	16	59°36.6										

30	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	179°07.0	23°11.8	0	178°58.2	22°59.7	0	178°50.1	22°44.0	0	178°42.8	22°24.8	0	178°36.4	22°02.0
1	194°06.8	23°11.7	1	193°58.1	22°59.5	1	193°50.0	22°43.8	1	193°42.7	22°24.5	1	193°36.4	22°01.7
2	209°06.7	23°11.5	2	208°57.9	22°59.3	2	208°49.9	22°43.5	2	208°42.6	22°24.2	2	208°36.3	22°01.3
3	224°06.6	23°11.4	3	223°57.8	22°59.1	3	223°49.7	22°43.3	3	223°42.5	22°23.9	3	223°36.2	22°01.0
4	239°06.5	23°11.2	4	238°57.7	22°58.9	4	238°49.6	22°43.0	4	238°42.4	22°23.6	4	238°36.1	22°00.7
5	254°06.3	23°11.1	5	253°57.6	22°58.7	5	253°49.5	22°42.8	5	253°42.3	22°23.3	5	253°36.0	22°00.3
6	269°06.2	23°11.0	6	268°57.5	22°58.6	6	268°49.4	22°42.5	6	268°42.2	22°23.0	6	268°36.0	21°59.9
7	284°06.1	23°10.8	7	283°57.4	22°58.4	7	283°49.3	22°42.3	7	283°42.1	22°22.7	7	283°35.9	21°59.6
8	299°06.0	23°10.7	8	298°57.2	22°58.2	8	298°49.2	22°42.1	8	298°42.0	22°22.4	8	298°35.8	21°59.3
9	314°05.8	23°10.5	9	313°57.1	22°58.0	9	313°49.1	22°41.8	9	313°41.9	22°22.1	9	313°35.7	21°58.9
10	329°05.7	23°10.4	10	328°57.0	22°57.8	10	328°49.0	22°41.6	10	328°41.8	22°21.8	10	328°35.6	21°58.6
11	344°05.6	23°10.2	11	343°56.9	22°57.6	11	343°48.9	22°41.3	11	343°41.7	22°21.5	11	343°35.6	21°58.2
12	359°05.5	23°10.1	12	358°56.8	22°57.4	12	358°48.8	22°41.1	12	358°41.7	22°21.2	12	358°35.5	21°57.9
13	14°05.3	23°09.9	13	13°56.7	22°57.2	13	13°48.7	22°40.8	13	13°41.6	22°20.9	13	13°35.4	21°57.5
14	29°05.2	23°09.8	14	28°56.5	22°57.0	14	28°48.6	22°40.6	14	28°41.5	22°20.6	14	28°35.3	21°57.2
15	44°05.1	23°09.6	15	43°56.4	22°56.7	15	43°48.5	22°40.3	15	43°41.4	22°20.3	15	43°35.3	21°56.9
16	59°05.0	23°09.4	16	58°56.3	22°56.5	16	58°48.4	22°40.0	16	58°41.3	22°20.0	16	58°35.2	21°56.5
17	74°04.8	23°09.3	17	73°56.2	22°56.3	17	73°48.3	22°39.8	17	73°41.2	22°19.7	17	73°35.1	21°56.2
18	89°04.7	23°09.1	18	88°56.1	22°56.1	18	88°48.2	22°39.5	18	88°41.1	22°19.4	18	88°35.0	21°55.8
19	104°04.6	23°09.0	19	103°56.0	22°55.9	19	103°48.1	22°39.3	19	103°41.0	22°19.1	19	103°34.9	21°55.4
20	119°04.5	23°08.8	20	118°55.9	22°55.7	20	118°48.0	22°39.0	20	118°40.9	22°18.8	20	118°34.9	21°55.1
21	134°04.3	23°08.7	21	133°55.7	22°55.5	21	133°47.9	22°38.8	21	133°40.8	22°18.5	21	133°34.8	21°54.7
22	149°04.2	23°08.5	22	148°55.6	22°55.3	22	148°47.7	22°38.5	22	148°40.6	22°18.2	22	148°34.7	21°54.4
23	164°04.1	23°08.4	23	163°55.5	22°55.1	23	163°47.6	22°38.2	23	163°40.7	22°17.9	23	163°34.6	21°54.0
	SD.=15.7	d=-0.1		SD.=15.7	d=-0.2		SD.=15.7	d=-0.2		SD.=15.7	d=-0.3		SD.=15.7	d=-0.3

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	179°04.0	23°08.2	0	178°55.4	22°54.9	0	178°47.5	22°38.0	0	178°40.6	22°17.6	0	178°34.6	21°53.7
1	194°03.8	23°08.0	1	193°55.3	22°54.7	1	193°47.4	22°37.7	1	193°40.5	22°17.3	1	193°34.5	21°53.3
2	209°03.7	23°07.9	2	208°55.2	22°54.5	2	208°47.3	22°37.5	2	208°40.4	22°16.9	2	208°34.4	21°53.0
3	224°03.6	23°07.7	3	223°55.1	22°54.3	3	223°47.2	22°37.2	3	223°40.3	22°16.6	3	223°34.3	21°52.6
4	239°03.5	23°07.5	4	238°54.9	22°54.0	4	238°47.1	22°36.9	4	238°40.2	22°16.3	4	238°34.3	21°52.3
5	254°03.4	23°07.4	5	253°54.8	22°53.8	5	253°47.0	22°36.7	5	253°40.1	22°16.0	5	253°34.2	21°51.9
6	269°03.2	23°07.2	6	268°54.7	22°53.6	6	268°46.9	22°36.4	6	268°40.0	22°15.7	6	268°34.1	21°51.5
7	284°03.1	23°07.1	7	283°54.6	22°53.4	7	283°46.8	22°36.2	7	283°39.9	22°15.4	7	283°34.0	21°51.2
8	299°03.0	23°06.9	8	298°54.5	22°53.2	8	298°46.7	22°35.9	8	298°39.8	22°15.1	8	298°34.0	21°50.8
9	314°02.9	23°06.7	9	313°54.4	22°53.0	9	313°46.6	22°35.6	9	313°39.8	22°14.8	9	313°33.9	21°50.5
10	329°02.7	23°06.6	10	328°54.3	22°52.8	10	328°46.5	22°35.4	10	328°39.7	22°14.5	10	328°33.8	21°50.1
11	344°02.6	23°06.4	11	343°54.1	22°52.5	11	343°46.4	22°35.1	11	343°39.6	22°14.1	11	343°33.7	21°49.7
12	359°02.5	23°06.2	12	358°54.0	22°52.3	12	358°46.3	22°34.8	12	358°39.5	22°13.8	12	358°33.7	21°49.4
13	14°02.4	23°06.1	13	13°53.9	22°52.1	13	13°46.2	22°34.6	13	13°39.4	22°13.5	13	13°33.6	21°49.0
14	29°02.3	23°05.9	14	28°53.8	22°51.9	14	28°46.1	22°34.3	14	28°39.3	22°13.2	14	28°33.5	21°48.6
15	44°02.1	23°05.7	15	43°53.7	22°51.7	15	43°46.0	22°34.0	15	43°39.2	22°12.9	15	43°33.5	21°48.3
16	59°02.0	23°05.5	16	58°53.6	22°51.4	16	58°45.9	22°33.8	16	58°39.1	22°12.6	16	58°33.4	21°47.9
17	74°01.9	23°05.4	17	73°53.5	22°51.2	17	73°45.8	22°33.5	17	73°39.0	22°12.2	17	73°33.3	21°47.5
18	89°01.8	23°05.2	18	88°53.4	22°51.0	18	88°45.7	22°33.2	18	88°39.0	22°11.9	18	88°33.2	21°47.2
19	104°01.6	23°05.0	19	103°53.2	22°50.8	19	103°45.6	22°32.9	19	103°38.9	22°11.6	19	103°33.2	21°46.8
20	119°01.5	23°04.9	20	118°53.1	22°50.6	20	118°45.5	22°32.7	20	118°38.8	22°11.3	20	118°33.1	21°46.4
21	134°01.4	23°04.7	21	133°53.0	22°50.3	21	133°45.4	22°32.4	21	133°38.7	22°11.0	21	133°33.0	21°46.1
22	149°01.3	23°04.5	22	148°52.9	22°50.1	22	148°45.3	22°32.1	22	148°38.6	22°10.6	22	148°33.0	21°45.7
23	164°01.2	23°04.3	23	163°52.8	22°49.9	23	163°45.2	22°31.8	23	163°38.5	22°10.3	23	163°32.9	21°45.3
	SD.=15.7	d=-0.2		SD.=15.7	d=-0.2		SD.=15.7	d=-0.3		SD.=15.7	d=-0.3		SD.=15.7	d=-0.4

02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec	14	GHA	Dec
0	179°01.0	23°04.2	0	178°52.7	22°49.7	0	178°45.1	22°31.6	0	178°38.4	22°10.0	0	178°32.8	21°45.0
1	194°00.9	23°04.0	1	193°52.6	22°49.4	1	193°45.0	22°31.3	1	193°38.4	22°09.7	1	193°32.7	21°44.6
2	209°00.8	23°03.8	2	208°52.5	22°49.2	2	208°44.9	22°31.0	2	208°38.3	22°09.3	2	208°32.7	21°44.2
3	224°00.7	23°03.6	3	223°52.4	22°49.0	3	223°44.8	22°30.7	3	223°38.2	22°09.0	3	223°32.6	21°43.8
4	239°00.6	23°03.4	4	238°52.2	22°48.7	4	238°44.7	22°30.5	4	238°38.1	22°08.7	4	238°32.5	21°43.5
5	254°00.4	23°03.3	5	253°52.1	22°48.5	5	253°44.6	22°30.2	5	253°38.0	22°08.4	5	253°32.5	21°43.1
6	269°00.3	23°03.1	6	268°52.0	22°48.3	6	268°44.5	22°29.9	6	268°37.9	22°08.0	6	268°32.4	21°42.7
7	284°00.2	23°02.9	7	283°51.9	22°48.0	7	283°44.4	22°29.6	7	283°37.8	22°07.7	7	283°32.3	21°42.4
8	299°00.1	23°02.7	8	298°51.8	22°47.8	8	298°44.3	22°29.3	8	298°37.8	22°07.4	8	298°32.3	21°42.0
9	313°00.0	23°02.5	9	313°51.7	22°47.6	9	313°44.2	22°29.1	9	313°37.7	22°07.0	9	313°32.2	21°41.6
10	328°59.8	23°02.4	10	328°51.6	22°47.4	10	328°44.1	22°28.8	10	328°37.6	22°06.7	10	328°32.1	21°41.2
11	343°59.7	23°02.2	11	343°51.5	22°47.1	11	343°44.0	22°28.5	11	343°37.5	22°06.4	11	343°32.0	21°40.8
12	358°59.6	23°02.0	12	358°51.4	22°46.9	12	358°43.9	22°28.2	12	358°37.4	22°06.0	12	358°32.0	21°40.5
13	13°59.5	23°01.8	13	13°51.3	22°46.6	13	13°43.8	22°27.9	13	13°37.3	22°05.7	13	13°31.9	21°40.1
14	28°59.4	23°01.6	14	28°51.2	22°46.4	14	28°43.7	22°27.6	14	28°37.3	22°05.4	14	28°31.8	21°39.7
15	43°59.2	23°01.4	15	43°51.0	22°46.2	15	43°43.6	22°27.4	15	43°37.2	22°05.0	15	43°31.8	21°39.3
16	58°59.1	23°01.2	16	58°50.9	22°45.9	16	58°43.5	22°27.1	16	58°37.1	22°04.7	16	58°31.7	21°38.9
17	73°59.0	23°01.1	17	73°50.8	22°45.7	17	73°43.4	22°26.8	17	73°37.0	22°04.4	17	73°31.6	21°38.6
18	88°58.9	23°00.9	18	88°50.7	22°45.5	18	88°43.4	22°26.5	18	88°36.9	22°04.0	18	88°31.6	21°38.2
19	103°58.8	23°00.7	19	103°50.6	22°45.2	19	103°43.3	22°26.2	19	103°36.9	22°03.7	19	103°31.5	21°37.8
20	118°58.7	23°00.5	20	118°50.5	22°45.0	20	118°43.2	22°25.9	20	118°36.8	22°03.4	20	118°31.4	21°37.4
21	133°58.5	23°00.3	21	133°50.4	22°44.7	21	133°43.1	22°25.6	21	133°36.7	22°03.0	21	133°31.4	21°37.0
22	148°58.4	23°00.1	22	148°50.3	22°44.5	22	148°43.0	22°25.3	22	148°36.6	22°02.7	22	148°31.3	21°36.6
23	163°58.3	22°59.9	23	163°50.2	22°44.3	23	163°42.9	22°25.1	23	163°36.5	22°02.4	23	163°31.2	

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	178°31.2	21°35.9	0	178°27.0	21°06.4	0	178°24.1	20°33.8	0	178°22.4	19°58.0	0	178°21.9	19°19.2
1	193°31.1	21°35.5	1	193°27.0	21°06.0	1	193°24.1	20°33.3	1	193°22.4	19°57.5	1	193°21.9	19°18.7
2	208°31.0	21°35.1	2	208°26.9	21°05.6	2	208°24.0	20°32.8	2	208°22.3	19°57.0	2	208°21.9	19°18.1
3	223°31.0	21°34.7	3	223°26.9	21°05.1	3	223°24.0	20°32.3	3	223°22.3	19°56.5	3	223°21.9	19°17.6
4	238°30.9	21°34.3	4	238°26.8	21°04.7	4	238°24.0	20°31.9	4	238°22.3	19°55.9	4	238°22.0	19°17.0
5	253°30.9	21°33.9	5	253°26.8	21°04.3	5	253°23.9	20°31.4	5	253°22.3	19°55.4	5	253°22.0	19°16.4
6	268°30.8	21°33.5	6	268°26.7	21°03.8	6	268°23.9	20°30.9	6	268°22.3	19°54.9	6	268°22.0	19°15.9
7	283°30.7	21°33.2	7	283°26.7	21°03.4	7	283°23.9	20°30.4	7	283°22.3	19°54.4	7	283°22.0	19°15.3
8	298°30.7	21°32.8	8	298°26.6	21°03.0	8	298°23.8	20°30.0	8	298°22.3	19°53.9	8	298°22.0	19°14.8
9	313°30.6	21°32.4	9	313°26.6	21°02.5	9	313°23.8	20°29.5	9	313°22.2	19°53.3	9	313°22.0	19°14.2
10	328°30.5	21°32.0	10	328°26.6	21°02.1	10	328°23.8	20°29.0	10	328°22.2	19°52.8	10	328°22.0	19°13.6
11	343°30.5	21°31.6	11	343°26.5	21°01.6	11	343°23.7	20°28.5	11	343°22.2	19°52.3	11	343°22.0	19°13.1
12	358°30.4	21°31.2	12	358°26.5	21°01.2	12	358°23.7	20°28.0	12	358°22.2	19°51.8	12	358°22.0	19°12.5
13	13°30.3	21°30.8	13	13°26.4	21°00.8	13	13°23.7	20°27.5	13	13°22.2	19°51.2	13	13°22.0	19°11.9
14	28°30.3	21°30.4	14	28°26.4	21°00.3	14	28°23.7	20°27.1	14	28°22.2	19°50.7	14	28°22.0	19°11.4
15	43°30.2	21°30.0	15	43°26.3	20°59.9	15	43°23.6	20°26.6	15	43°22.2	19°50.2	15	43°22.0	19°10.8
16	58°30.2	21°29.6	16	58°26.3	20°59.4	16	58°23.6	20°26.1	16	58°22.2	19°49.7	16	58°22.0	19°10.2
17	73°30.1	21°29.2	17	73°26.2	20°59.0	17	73°23.6	20°25.6	17	73°22.2	19°49.1	17	73°22.0	19°09.7
18	88°30.0	21°28.8	18	88°26.2	20°58.6	18	88°23.5	20°25.1	18	88°22.1	19°48.6	18	88°22.0	19°09.1
19	103°30.0	21°28.4	19	103°26.1	20°58.1	19	103°23.5	20°24.6	19	103°22.1	19°48.1	19	103°22.0	19°08.5
20	118°29.9	21°28.0	20	118°26.1	20°57.7	20	118°23.5	20°24.1	20	118°22.1	19°47.5	20	118°22.0	19°08.0
21	133°29.8	21°27.6	21	133°26.1	20°57.2	21	133°23.5	20°23.7	21	133°22.1	19°47.0	21	133°22.1	19°07.4
22	148°29.8	21°27.2	22	148°26.0	20°56.8	22	148°23.4	20°23.2	22	148°22.1	19°46.5	22	148°22.1	19°06.8
23	163°29.7	21°26.8	23	163°26.0	20°56.3	23	163°23.4	20°22.7	23	163°22.1	19°45.9	23	163°22.1	19°06.3
	SD.=15.7	d=-0.4		SD.=15.7	d=-0.4		SD.=15.7	d=-0.5		SD.=15.7	d=-0.5		SD.=15.7	d=-0.6

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	178°29.7	21°26.4	0	178°25.9	20°55.9	0	178°23.4	20°22.2	0	178°22.1	19°45.4	0	178°22.1	19°05.7
1	193°29.6	21°26.0	1	193°25.9	20°55.5	1	193°23.4	20°21.7	1	193°22.1	19°44.9	1	193°22.1	19°05.1
2	208°29.5	21°25.6	2	208°25.8	20°55.0	2	208°23.3	20°21.2	2	208°22.1	19°44.4	2	208°22.1	19°04.5
3	223°29.5	21°25.2	3	223°25.8	20°54.6	3	223°23.3	20°20.7	3	223°22.1	19°43.8	3	223°22.1	19°04.0
4	238°29.4	21°24.8	4	238°25.7	20°54.1	4	238°23.3	20°20.2	4	238°22.1	19°43.3	4	238°22.1	19°03.4
5	253°29.4	21°24.4	5	253°25.7	20°53.7	5	253°23.2	20°19.7	5	253°22.0	19°42.8	5	253°22.1	19°02.8
6	268°29.3	21°24.0	6	268°25.7	20°53.2	6	268°23.2	20°19.2	6	268°22.0	19°42.2	6	268°22.1	19°02.2
7	283°29.3	21°23.6	7	283°25.6	20°52.8	7	283°23.2	20°18.8	7	283°22.0	19°41.7	7	283°22.1	19°01.7
8	298°29.2	21°23.2	8	298°25.6	20°52.3	8	298°23.2	20°18.3	8	298°22.0	19°41.1	8	298°22.2	19°01.1
9	313°29.1	21°22.8	9	313°25.5	20°51.9	9	313°23.1	20°17.8	9	313°22.0	19°40.6	9	313°22.2	19°00.5
10	328°29.1	21°22.4	10	328°25.5	20°51.4	10	328°23.1	20°17.3	10	328°22.0	19°40.1	10	328°22.2	18°59.9
11	343°29.0	21°22.0	11	343°25.5	20°51.0	11	343°23.1	20°16.8	11	343°22.0	19°39.5	11	343°22.2	18°59.4
12	358°29.0	21°21.6	12	358°25.4	20°50.5	12	358°23.1	20°16.3	12	358°22.0	19°39.0	12	358°22.2	18°58.8
13	13°28.9	21°21.2	13	13°25.4	20°50.0	13	13°23.1	20°15.8	13	13°22.0	19°38.5	13	13°22.2	18°58.2
14	28°28.8	21°20.7	14	28°25.3	20°49.6	14	28°23.0	20°15.3	14	28°22.0	19°37.9	14	28°22.2	18°57.6
15	43°28.8	21°20.3	15	43°25.3	20°49.1	15	43°23.0	20°14.8	15	43°22.0	19°37.4	15	43°22.2	18°57.0
16	58°28.7	21°19.9	16	58°25.2	20°48.7	16	58°23.0	20°14.3	16	58°22.0	19°36.8	16	58°22.3	18°56.5
17	73°28.7	21°19.5	17	73°25.2	20°48.2	17	73°23.0	20°13.8	17	73°22.0	19°36.3	17	73°22.3	18°55.9
18	88°28.6	21°19.1	18	88°25.2	20°47.8	18	88°22.9	20°13.3	18	88°22.0	19°35.8	18	88°22.3	18°55.3
19	103°28.6	21°18.7	19	103°25.1	20°47.3	19	103°22.9	20°12.8	19	103°22.0	19°35.2	19	103°22.3	18°54.7
20	118°28.5	21°18.3	20	118°25.1	20°46.8	20	118°22.9	20°12.3	20	118°22.0	19°34.7	20	118°22.3	18°54.1
21	133°28.5	21°17.9	21	133°25.1	20°46.4	21	133°22.9	20°11.8	21	133°21.9	19°34.1	21	133°22.3	18°53.5
22	148°28.4	21°17.4	22	148°25.0	20°45.9	22	148°22.8	20°11.3	22	148°21.9	19°33.6	22	148°22.3	18°53.0
23	163°28.3	21°17.0	23	163°25.0	20°45.5	23	163°22.8	20°10.8	23	163°21.9	19°33.0	23	163°22.4	18°52.4
	SD.=15.7	d=-0.4		SD.=15.7	d=-0.4		SD.=15.7	d=-0.5		SD.=15.7	d=-0.5		SD.=15.7	d=-0.6

17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec	29	GHA	Dec
0	178°28.3	21°16.6	0	178°24.9	20°45.0	0	178°22.8	20°10.3	0	178°21.9	19°32.5	0	178°22.4	18°51.8
1	193°28.2	21°16.2	1	193°24.9	20°44.5	1	193°22.8	20°09.8	1	193°21.9	19°31.9	1	193°22.4	18°51.2
2	208°28.2	21°15.8	2	208°24.9	20°44.1	2	208°22.8	20°09.3	2	208°21.9	19°31.4	2	208°22.4	18°50.6
3	223°28.1	21°15.4	3	223°24.8	20°43.6	3	223°22.7	20°08.8	3	223°21.9	19°30.9	3	223°22.4	18°50.0
4	238°28.1	21°14.9	4	238°24.8	20°43.2	4	238°22.7	20°08.3	4	238°21.9	19°30.3	4	238°22.4	18°49.5
5	253°28.0	21°14.5	5	253°24.7	20°42.7	5	253°22.7	20°07.7	5	253°21.9	19°29.8	5	253°22.4	18°48.9
6	268°28.0	21°14.1	6	268°24.7	20°42.2	6	268°22.7	20°07.2	6	268°21.9	19°29.2	6	268°22.5	18°48.3
7	283°27.9	21°13.7	7	283°24.7	20°41.8	7	283°22.7	20°06.7	7	283°21.9	19°28.7	7	283°22.5	18°47.7
8	298°27.9	21°13.3	8	298°24.6	20°41.3	8	298°22.6	20°06.2	8	298°21.9	19°28.1	8	298°22.5	18°47.1
9	313°27.8	21°12.8	9	313°24.6	20°40.8	9	313°22.6	20°05.7	9	313°21.9	19°27.6	9	313°22.5	18°46.5
10	328°27.7	21°12.4	10	328°24.6	20°40.4	10	328°22.6	20°05.2	10	328°21.9	19°27.0	10	328°22.5	18°45.9
11	343°27.7	21°12.0	11	343°24.5	20°39.9	11	343°22.6	20°04.7	11	343°21.9	19°26.5	11	343°22.5	18°45.3
12	358°27.6	21°11.6	12	358°24.5	20°39.4	12	358°22.6	20°04.2	12	358°21.9	19°25.9	12	358°22.6	18°44.7
13	13°27.6	21°11.1	13	13°24.5	20°39.0	13	13°22.6	20°03.7	13	13°21.9	19°25.4	13	13°22.6	18°44.1
14	28°27.5	21°10.7	14	28°24.4	20°38.5	14	28°22.5	20°03.2	14	28°21.9	19°24.8	14	28°22.6	18°43.6
15	43°27.5	21°10.3	15	43°24.4	20°38.0	15	43°22.5	20°02.6	15	43°21.9	19°24.3	15	43°22.6	18°43.0
16	58°27.4	21°09.9	16	58°24.4	20°37.6	16	58°22.5	20°02.1	16	58°21.9	19°23.7	16	58°22.6	18°42.4
17	73°27.4	21°09.4	17	73°24.3	20°37.1	17	73°22.5	20°01.6	17	73°21.9	19°23.1	17	73°22.7	18°41.8
18	88°27.3	21°09.0	18	88°24.3	20°36.6	18	88°22.5	20°01.1	18	88°21.9	19°22.6	18	88°22.7	18°41.2
19	103°27.3	21°08.6	19	103°24.3	20°36.1	19	103°22.5	20°00.6	19	103°21.9	19°22.0	19	103°22.7	18°40.6
20	118°27.2	21°08.2	20	118°24.2	20°35.7	20	118°22.4	20°00.1	20	118°21.9	19°21.5	20	118°22.7	18°40.0
21	133°27.2	21°07.7	21	133°24.2	20°35.2	21	133°22.4	19°59.6	21	133°21.9	19°20.9	21	133°22.7	18°39.4
22	148°27.1	21°07.3	22	148°24.2	20°34.7	22	148°22.4	19°59.0	22	148°21.9	19°20.4	22	148°22.8	18°38.8
23	163°27.1	21°06.9	23	163°24.1	20°34.3									

30	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec
0	178°22.8	18°37.6	0	178°25.0	17°53.2	0	178°28.6	17°06.2	0	178°33.6	16°16.7	0	178°39.9	15°24.8
1	193°22.8	18°37.0	1	193°25.1	17°52.6	1	193°28.7	17°05.5	1	193°33.7	16°16.0	1	193°40.0	15°24.1
2	208°22.8	18°36.4	2	208°25.1	17°51.9	2	208°28.7	17°04.8	2	208°33.7	16°15.3	2	208°40.1	15°23.3
3	223°22.9	18°35.8	3	223°25.1	17°51.3	3	223°28.8	17°04.2	3	223°33.8	16°14.6	3	223°40.2	15°22.6
4	238°22.9	18°35.2	4	238°25.2	17°50.7	4	238°28.8	17°03.5	4	238°33.9	16°13.9	4	238°40.3	15°21.9
5	253°22.9	18°34.6	5	253°25.2	17°50.0	5	253°28.9	17°02.8	5	253°34.0	16°13.1	5	253°40.4	15°21.1
6	268°22.9	18°34.0	6	268°25.3	17°49.4	6	268°29.0	17°02.1	6	268°34.1	16°12.4	6	268°40.5	15°20.4
7	283°23.0	18°33.4	7	283°25.3	17°48.7	7	283°29.0	17°01.5	7	283°34.1	16°11.7	7	283°40.6	15°19.7
8	298°23.0	18°32.8	8	298°25.3	17°48.1	8	298°29.1	17°00.8	8	298°34.2	16°11.0	8	298°40.7	15°18.9
9	313°23.0	18°32.2	9	313°25.4	17°47.5	9	313°29.1	17°00.1	9	313°34.3	16°10.3	9	313°40.8	15°18.2
10	328°23.0	18°31.6	10	328°25.4	17°46.8	10	328°29.2	16°59.5	10	328°34.4	16°09.6	10	328°40.9	15°17.4
11	343°23.1	18°31.0	11	343°25.5	17°46.2	11	343°29.3	16°58.8	11	343°34.5	16°08.9	11	343°41.0	15°16.7
12	358°23.1	18°30.4	12	358°25.5	17°45.5	12	358°29.3	16°58.1	12	358°34.5	16°08.2	12	358°41.1	15°16.0
13	13°23.1	18°29.8	13	13°25.6	17°44.9	13	13°29.4	16°57.4	13	13°34.6	16°07.5	13	13°41.2	15°15.2
14	28°23.1	18°29.2	14	28°25.6	17°44.3	14	28°29.5	16°56.7	14	28°34.7	16°06.8	14	28°41.3	15°14.5
15	43°23.2	18°28.6	15	43°25.6	17°43.6	15	43°29.5	16°56.1	15	43°34.8	16°06.1	15	43°41.4	15°13.7
16	58°23.2	18°28.0	16	58°25.7	17°43.0	16	58°29.6	16°55.4	16	58°34.9	16°05.3	16	58°41.5	15°13.0
17	73°23.2	18°27.4	17	73°25.7	17°42.3	17	73°29.7	16°54.7	17	73°35.0	16°04.6	17	73°41.6	15°12.2
18	88°23.2	18°26.8	18	88°25.8	17°41.7	18	88°29.7	16°54.0	18	88°35.0	16°03.9	18	88°41.7	15°11.5
19	103°23.3	18°26.1	19	103°25.8	17°41.0	19	103°29.8	16°53.4	19	103°35.1	16°03.2	19	103°41.8	15°10.8
20	118°23.3	18°25.5	20	118°25.9	17°40.4	20	118°29.8	16°52.7	20	118°35.2	16°02.5	20	118°41.9	15°10.0
21	133°23.3	18°24.9	21	133°25.9	17°39.8	21	133°29.9	16°52.0	21	133°35.3	16°01.8	21	133°42.0	15°09.3
22	148°23.3	18°24.3	22	148°26.0	17°39.1	22	148°30.0	16°51.3	22	148°35.4	16°01.1	22	148°42.1	15°08.5
23	163°23.4	18°23.7	23	163°26.0	17°38.5	23	163°30.0	16°50.6	23	163°35.5	16°00.4	23	163°42.2	15°07.8
	SD.=15.8	d=-0.6		SD.=15.8	d=-0.6		SD.=15.8	d=-0.7		SD.=15.8	d=-0.7		SD.=15.8	d=-0.7

31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	178°23.4	18°23.1	0	178°26.1	17°37.8	0	178°30.1	16°49.9	0	178°35.6	15°59.6	0	178°42.3	15°07.0
1	193°23.4	18°22.5	1	193°26.1	17°37.2	1	193°30.2	16°49.3	1	193°35.6	15°58.9	1	193°42.4	15°06.3
2	208°23.4	18°21.9	2	208°26.2	17°36.5	2	208°30.2	16°48.6	2	208°35.7	15°58.2	2	208°42.6	15°05.5
3	223°23.5	18°21.3	3	223°26.2	17°35.9	3	223°30.3	16°47.9	3	223°35.8	15°57.5	3	223°42.7	15°04.8
4	238°23.5	18°20.7	4	238°26.2	17°35.2	4	238°30.4	16°47.2	4	238°35.9	15°56.8	4	238°42.8	15°04.0
5	253°23.5	18°20.0	5	253°26.3	17°34.6	5	253°30.4	16°46.5	5	253°36.0	15°56.1	5	253°42.9	15°03.3
6	268°23.6	18°19.4	6	268°26.3	17°33.9	6	268°30.5	16°45.8	6	268°36.1	15°55.3	6	268°43.0	15°02.6
7	283°23.6	18°18.8	7	283°26.4	17°33.3	7	283°30.6	16°45.2	7	283°36.2	15°54.6	7	283°43.1	15°01.8
8	298°23.6	18°18.2	8	298°26.4	17°32.6	8	298°30.6	16°44.5	8	298°36.2	15°53.9	8	298°43.2	15°01.1
9	313°23.6	18°17.6	9	313°26.5	17°32.0	9	313°30.7	16°43.8	9	313°36.3	15°53.2	9	313°43.3	15°00.3
10	328°23.7	18°17.0	10	328°26.5	17°31.3	10	328°30.8	16°43.1	10	328°36.4	15°52.5	10	328°43.4	14°59.6
11	343°23.7	18°16.4	11	343°26.6	17°30.7	11	343°30.9	16°42.4	11	343°36.5	15°51.8	11	343°43.5	14°58.8
12	358°23.7	18°15.7	12	358°26.6	17°30.0	12	358°30.9	16°41.7	12	358°36.6	15°51.0	12	358°43.6	14°58.1
13	13°23.8	18°15.1	13	13°26.7	17°29.4	13	13°31.0	16°41.0	13	13°36.7	15°50.3	13	13°43.7	14°57.3
14	28°23.8	18°14.5	14	28°26.7	17°28.7	14	28°31.1	16°40.4	14	28°36.8	15°49.6	14	28°43.8	14°56.6
15	43°23.8	18°13.9	15	43°26.8	17°28.0	15	43°31.1	16°39.7	15	43°36.9	15°48.9	15	43°43.9	14°55.8
16	58°23.9	18°13.3	16	58°26.8	17°27.4	16	58°31.2	16°39.0	16	58°36.9	15°48.1	16	58°44.0	14°55.0
17	73°23.9	18°12.6	17	73°26.9	17°26.7	17	73°31.3	16°38.3	17	73°37.0	15°47.4	17	73°44.1	14°54.3
18	88°23.9	18°12.0	18	88°26.9	17°26.1	18	88°31.3	16°37.6	18	88°37.1	15°46.7	18	88°44.2	14°53.5
19	103°24.0	18°11.4	19	103°27.0	17°25.4	19	103°31.4	16°36.9	19	103°37.2	15°46.0	19	103°44.4	14°52.8
20	118°24.0	18°10.8	20	118°27.0	17°24.8	20	118°31.5	16°36.2	20	118°37.3	15°45.3	20	118°44.5	14°52.0
21	133°24.0	18°10.2	21	133°27.1	17°24.1	21	133°31.6	16°35.5	21	133°37.4	15°44.5	21	133°44.6	14°51.3
22	148°24.1	18°09.5	22	148°27.1	17°23.5	22	148°31.6	16°34.8	22	148°37.5	15°43.8	22	148°44.7	14°50.5
23	163°24.1	18°08.9	23	163°27.2	17°22.8	23	163°31.7	16°34.1	23	163°37.6	15°43.1	23	163°44.8	14°49.8
	SD.=15.8	d=-0.6		SD.=15.8	d=-0.6		SD.=15.8	d=-0.7		SD.=15.8	d=-0.7		SD.=15.8	d=-0.7

01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec	13	GHA	Dec
0	178°24.1	18°08.3	0	178°27.3	17°22.1	0	178°31.8	16°33.4	0	178°37.7	15°42.4	0	178°44.9	14°49.0
1	193°24.2	18°07.7	1	193°27.3	17°21.5	1	193°31.8	16°32.8	1	193°37.8	15°41.6	1	193°45.0	14°48.3
2	208°24.2	18°07.1	2	208°27.4	17°20.8	2	208°31.9	16°32.1	2	208°37.9	15°40.9	2	208°45.1	14°47.5
3	223°24.2	18°06.4	3	223°27.4	17°20.2	3	223°32.0	16°31.4	3	223°37.9	15°40.2	3	223°45.2	14°46.7
4	238°24.3	18°05.8	4	238°27.5	17°19.5	4	238°32.1	16°30.7	4	238°38.0	15°39.4	4	238°45.3	14°46.0
5	253°24.3	18°05.2	5	253°27.5	17°18.8	5	253°32.1	16°30.0	5	253°38.1	15°38.7	5	253°45.4	14°45.2
6	268°24.3	18°04.6	6	268°27.6	17°18.2	6	268°32.2	16°29.3	6	268°38.2	15°38.0	6	268°45.6	14°44.5
7	283°24.4	18°03.9	7	283°27.6	17°17.5	7	283°32.3	16°28.6	7	283°38.3	15°37.3	7	283°45.7	14°43.7
8	298°24.4	18°03.3	8	298°27.7	17°16.9	8	298°32.4	16°27.9	8	298°38.4	15°36.5	8	298°45.8	14°43.0
9	313°24.4	18°02.7	9	313°27.7	17°16.2	9	313°32.4	16°27.2	9	313°38.5	15°35.8	9	313°45.9	14°42.2
10	328°24.5	18°02.0	10	328°27.8	17°15.5	10	328°32.5	16°26.5	10	328°38.6	15°35.1	10	328°46.0	14°41.4
11	343°24.5	18°01.4	11	343°27.9	17°14.9	11	343°32.6	16°25.8	11	343°38.7	15°34.3	11	343°46.1	14°40.7
12	358°24.6	18°00.8	12	358°27.9	17°14.2	12	358°32.7	16°25.1	12	358°38.8	15°33.6	12	358°46.2	14°39.9
13	13°24.6	18°00.2	13	13°28.0	17°13.5	13	13°32.7	16°24.4	13	13°38.9	15°32.9	13	13°46.3	14°39.2
14	28°24.6	17°59.5	14	28°28.0	17°12.9	14	28°32.8	16°23.7	14	28°39.0	15°32.2	14	28°46.5	14°38.4
15	43°24.7	17°58.9	15	43°28.1	17°12.2	15	43°32.9	16°23.0	15	43°39.1	15°31.4	15	43°46.6	14°37.6
16	58°24.7	17°58.3	16	58°28.1	17°11.5	16	58°33.0	16°22.3	16	58°39.2	15°30.7	16	58°46.7	14°36.9
17	73°24.7	17°57.6	17	73°28.2	17°10.9	17	73°33.0	16°21.6	17	73°39.3	15°30.0	17	73°46.8	14°36.1
18	88°24.8	17°57.0	18	88°28.3	17°10.2	18	88°33.1	16°20.9	18	88°39.4	15°29.2	18	88°46.9	14°35.3
19	103°24.8	17°56.4	19	103°28.3	17°09.5	19	103°33.2	16°20.2	19	103°39.4	15°28.5	19	103°47.0	14°34.6
20	118°24.9	17°55.7	20	118°28.4	17°08.9	20	118°33.3	16°19.5	20	118°39.5	15°27.8	20	118°47.1	14°33.8
21	133°24.9	17°55.1	21	133°28.4	17°08.2	21	133°33.3	16°18.8	21	133°39.6	15°27.0	21	133°47.3	14°33.1
22	148°24.9	17°54.5	22	148°28.5	17°07.5	22	148°33.4	16°18.1	22	148°39.7	15°26.3	22	148°47.4	14°32.3
23	163°25.0	17°53.8	23	163°28.5	17°06.9	23	163°33.5	16°17.4	23	163°39.8	15°25.6	23	163°47.5	

14	GHA	Dec	17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec
0	178°47.6	14°30.8	0	178°56.5	13°34.6	0	179°06.5	12°36.6	0	179°17.6	11°36.7	0	179°29.7	10°35.2
1	193°47.7	14°30.0	1	193°56.6	13°33.8	1	194°06.7	12°35.7	1	194°17.8	11°35.9	1	194°29.9	10°34.3
2	208°47.8	14°29.2	2	208°56.8	13°33.0	2	209°06.8	12°34.9	2	209°18.0	11°35.0	2	209°30.1	10°33.4
3	223°47.9	14°28.5	3	223°56.9	13°32.2	3	224°07.0	12°34.1	3	224°18.1	11°34.2	3	224°30.2	10°32.6
4	238°48.1	14°27.7	4	238°57.0	13°31.5	4	239°07.1	12°33.3	4	239°18.3	11°33.3	4	239°30.4	10°31.7
5	253°48.2	14°26.9	5	253°57.2	13°30.7	5	254°07.3	12°32.5	5	254°18.5	11°32.5	5	254°30.6	10°30.8
6	268°48.3	14°26.2	6	268°57.3	13°29.9	6	269°07.4	12°31.6	6	269°18.6	11°31.6	6	269°30.8	10°30.0
7	283°48.4	14°25.4	7	283°57.4	13°29.1	7	284°07.6	12°30.8	7	284°18.8	11°30.8	7	284°30.9	10°29.1
8	298°48.5	14°24.6	8	298°57.6	13°28.3	8	299°07.7	12°30.0	8	299°18.9	11°29.9	8	299°31.1	10°28.2
9	313°48.6	14°23.9	9	313°57.7	13°27.5	9	314°07.9	12°29.2	9	314°19.1	11°29.1	9	314°31.3	10°27.4
10	328°48.8	14°23.1	10	328°57.8	13°26.7	10	329°08.0	12°28.4	10	329°19.3	11°28.2	10	329°31.5	10°26.5
11	343°48.9	14°22.3	11	343°58.0	13°25.9	11	344°08.2	12°27.5	11	344°19.4	11°27.4	11	344°31.6	10°25.6
12	358°49.0	14°21.5	12	358°58.1	13°25.1	12	359°08.3	12°26.7	12	359°19.6	11°26.6	12	359°31.8	10°24.8
13	13°49.1	14°20.8	13	13°58.2	13°24.3	13	14°08.5	12°25.9	13	14°19.8	11°25.7	13	14°32.0	10°23.9
14	28°49.2	14°20.0	14	28°58.4	13°23.5	14	29°08.6	12°25.1	14	29°19.9	11°24.9	14	29°32.2	10°23.0
15	43°49.3	14°19.2	15	43°58.5	13°22.7	15	44°08.8	12°24.2	15	44°20.1	11°24.0	15	44°32.3	10°22.1
16	58°49.5	14°18.5	16	58°58.6	13°21.9	16	59°08.9	12°23.4	16	59°20.3	11°23.2	16	59°32.5	10°21.3
17	73°49.6	14°17.7	17	73°58.8	13°21.1	17	74°09.1	12°22.6	17	74°20.4	11°22.3	17	74°32.7	10°20.4
18	88°49.7	14°16.9	18	88°58.9	13°20.3	18	89°09.2	12°21.8	18	89°20.6	11°21.5	18	89°32.9	10°19.5
19	103°49.8	14°16.1	19	103°59.0	13°19.5	19	104°09.4	12°20.9	19	104°20.7	11°20.6	19	104°33.0	10°18.7
20	118°49.9	14°15.4	20	118°59.2	13°18.7	20	119°09.5	12°20.1	20	119°20.9	11°19.8	20	119°33.2	10°17.8
21	133°50.1	14°14.6	21	133°59.3	13°17.9	21	134°09.7	12°19.3	21	134°21.1	11°18.9	21	134°33.4	10°16.9
22	148°50.2	14°13.8	22	148°59.4	13°17.1	22	149°09.8	12°18.5	22	149°21.2	11°18.1	22	149°33.6	10°16.1
23	163°50.3	14°13.0	23	163°59.6	13°16.3	23	164°10.0	12°17.6	23	164°21.4	11°17.2	23	164°33.8	10°15.2
	SD.=15.8	d=-0.8		SD.=15.8	d=-0.9									

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	178°50.4	14°12.3	0	178°59.7	13°15.5	0	179°10.1	12°16.8	0	179°21.6	11°16.4	0	179°33.9	10°14.3
1	193°50.5	14°11.5	1	193°59.9	13°14.7	1	194°10.3	12°16.0	1	194°21.7	11°15.5	1	194°34.1	10°13.4
2	208°50.7	14°10.7	2	208°60.0	13°13.9	2	209°10.4	12°15.1	2	209°21.9	11°14.7	2	209°34.3	10°12.6
3	223°50.8	14°09.9	3	224°00.1	13°13.1	3	224°10.6	12°14.3	3	224°22.1	11°13.8	3	224°34.5	10°11.7
4	238°50.9	14°09.2	4	239°00.3	13°12.3	4	239°10.7	12°13.5	4	239°22.2	11°13.0	4	239°34.6	10°10.8
5	253°51.0	14°08.4	5	254°00.4	13°11.5	5	254°10.9	12°12.7	5	254°22.4	11°12.1	5	254°34.8	10°09.9
6	268°51.2	14°07.6	6	269°00.5	13°10.7	6	269°11.0	12°11.8	6	269°22.6	11°11.3	6	269°35.0	10°09.1
7	283°51.3	14°06.8	7	284°00.7	13°09.9	7	284°11.2	12°11.0	7	284°22.7	11°10.4	7	284°35.2	10°08.2
8	298°51.4	14°06.1	8	299°00.8	13°09.1	8	299°11.4	12°10.2	8	299°22.9	11°09.5	8	299°35.4	10°07.3
9	313°51.5	14°05.3	9	314°01.0	13°08.2	9	314°11.5	12°09.3	9	314°23.1	11°08.7	9	314°35.5	10°06.4
10	328°51.6	14°04.5	10	329°01.1	13°07.4	10	329°11.7	12°08.5	10	329°23.2	11°07.8	10	329°35.7	10°05.6
11	343°51.8	14°03.7	11	344°01.2	13°06.6	11	344°11.8	12°07.7	11	344°23.4	11°07.0	11	344°35.9	10°04.7
12	358°51.9	14°02.9	12	359°01.4	13°05.8	12	359°12.0	12°06.8	12	359°23.6	11°06.1	12	359°36.1	10°03.8
13	13°52.0	14°02.2	13	14°01.5	13°05.0	13	14°12.1	12°06.0	13	14°23.7	11°05.3	13	14°36.3	10°02.9
14	28°52.1	14°01.4	14	29°01.7	13°04.2	14	29°12.3	12°05.2	14	29°23.9	11°04.4	14	29°36.4	10°02.1
15	43°52.3	14°00.6	15	44°01.8	13°03.4	15	44°12.4	12°04.3	15	44°24.1	11°03.6	15	44°36.6	10°01.2
16	58°52.4	13°59.8	16	59°01.9	13°02.6	16	59°12.6	12°03.5	16	59°24.2	11°02.7	16	59°36.8	10°00.3
17	73°52.5	13°59.0	17	74°02.1	13°01.8	17	74°12.7	12°02.7	17	74°24.4	11°01.9	17	74°37.0	9°59.4
18	88°52.6	13°58.3	18	89°02.2	13°01.0	18	89°12.9	12°01.9	18	89°24.6	11°01.0	18	89°37.2	9°58.6
19	103°52.8	13°57.5	19	104°02.4	13°00.2	19	104°13.1	12°01.0	19	104°24.7	11°00.1	19	104°37.3	9°57.7
20	118°52.9	13°56.7	20	119°02.5	12°59.4	20	119°13.2	12°00.2	20	119°24.9	10°59.3	20	119°37.5	9°56.8
21	133°53.0	13°55.9	21	134°02.6	12°58.6	21	134°13.4	11°59.3	21	134°25.1	10°58.4	21	134°37.7	9°55.9
22	148°53.1	13°55.1	22	149°02.8	12°57.7	22	149°13.5	11°58.5	22	149°25.3	10°57.6	22	149°37.9	9°55.0
23	163°53.3	13°54.3	23	164°02.9	12°56.9	23	164°13.7	11°57.7	23	164°25.4	10°56.7	23	164°38.1	9°54.2
	SD.=15.8	d=-0.8		SD.=15.8	d=-0.8		SD.=15.8	d=-0.8		SD.=15.8	d=-0.9		SD.=15.8	d=-0.9

16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec	28	GHA	Dec
0	178°53.4	13°53.6	0	179°03.1	12°56.1	0	179°13.8	11°56.8	0	179°25.6	10°55.9	0	179°38.2	9°53.3
1	193°53.5	13°52.8	1	194°03.2	12°55.3	1	194°14.0	11°56.0	1	194°25.8	10°55.0	1	194°38.4	9°52.4
2	208°53.6	13°52.0	2	209°03.4	12°54.5	2	209°14.1	11°55.2	2	209°25.9	10°54.1	2	209°38.6	9°51.5
3	223°53.8	13°51.2	3	224°03.5	12°53.7	3	224°14.3	11°54.3	3	224°26.1	10°53.3	3	224°38.8	9°50.7
4	238°53.9	13°50.4	4	239°03.6	12°52.9	4	239°14.5	11°53.5	4	239°26.3	10°52.4	4	239°39.0	9°49.8
5	253°54.0	13°49.6	5	254°03.8	12°52.1	5	254°14.6	11°52.7	5	254°26.4	10°51.6	5	254°39.2	9°48.9
6	268°54.2	13°48.8	6	269°03.9	12°51.3	6	269°14.8	11°51.8	6	269°26.6	10°50.7	6	269°39.3	9°48.0
7	283°54.3	13°48.1	7	284°04.1	12°50.4	7	284°14.9	11°51.0	7	284°26.8	10°49.8	7	284°39.5	9°47.1
8	298°54.4	13°47.3	8	299°04.2	12°49.6	8	299°15.1	11°50.1	8	299°27.0	10°49.0	8	299°39.7	9°46.2
9	313°54.5	13°46.5	9	314°04.4	12°48.8	9	314°15.3	11°49.3	9	314°27.1	10°48.1	9	314°39.9	9°45.4
10	328°54.7	13°45.7	10	329°04.5	12°48.0	10	329°15.4	11°48.5	10	329°27.3	10°47.3	10	329°40.1	9°44.5
11	343°54.8	13°44.9	11	344°04.6	12°47.2	11	344°15.6	11°47.6	11	344°27.5	10°46.4	11	344°40.2	9°43.6
12	358°54.9	13°44.1	12	359°04.8	12°46.4	12	359°15.7	11°46.8	12	359°27.6	10°45.5	12	359°40.4	9°42.7
13	13°55.1	13°43.3	13	14°04.9	12°45.6	13	14°15.9	11°46.0	13	14°27.8	10°44.7	13	14°40.6	9°41.8
14	28°55.2	13°42.5	14	29°05.1	12°44.7	14	29°16.0	11°45.1	14	29°28.0	10°43.8	14	29°40.8	9°41.0
15	43°55.3	13°41.8	15	44°05.2	12°43.9	15	44°16.2	11°44.3	15	44°28.2	10°42.9	15	44°41.0	9°40.1
16	58°55.4	13°41.0	16	59°05.4	12°43.1	16	59°16.4	11°43.4	16	59°28.3	10°42.1	16	59°41.2	9°39.2
17	73°55.6	13°40.2	17	74°05.5	12°42.3	17	74°16.5	11°42.6	17	74°28.5	10°41.2	17	74°41.3	9°38.3
18	88°55.7	13°39.4	18	89°05.7	12°41.5	18	89°16.7	11°41.8	18	89°28.7	10°40.4	18	89°41.5	9°37.4
19	103°55.8	13°38.6	19	104°05.8	12°40.7	19	104°16.8	11°40.9	19	104°28.8	10°39.5	19	104°41.7	9°36.5
20	118°56.0	13°37.8	20	119°06.0	12°39.8	20	119°17.0	11°40.1	20	119°29.0	10°38.6	20	119°41.9	9°35.7
21	133°56.1	13°37.0	21	134°06.1	12°39.0	21	134°17.2	11°39.2	21	134°29.2	10°37.8	21	134°42.1	9°34.8
22	148°56.2	13°36.2	22	149°06.2	12°38.2	22	149°17.3	11°38.4	22	149°29.4	10°36.9	22	149°42.3	9°33.9
23	163°56.4	13°35.4	23	164°06.4	12°37.4	23	164°17.5	11°37.5						

29	GHA	Dec	01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec
0	179°42.6	9°32.1	0	179°56.4	8°27.7	0	180°10.8	7°22.0	0	180°25.8	6°15.3	0	180°41.3	5°07.7
1	194°42.8	9°31.2	1	194°56.6	8°26.8	1	195°11.0	7°21.1	1	195°26.0	6°14.4	1	195°41.6	5°06.8
2	209°43.0	9°30.3	2	209°56.7	8°25.9	2	210°11.2	7°20.2	2	210°26.2	6°13.5	2	210°41.8	5°05.8
3	224°43.2	9°29.5	3	224°56.9	8°25.0	3	225°11.4	7°19.3	3	225°26.5	6°12.5	3	225°42.0	5°04.9
4	239°43.4	9°28.6	4	239°57.1	8°24.1	4	240°11.6	7°18.4	4	240°26.7	6°11.6	4	240°42.2	5°03.9
5	254°43.6	9°27.7	5	254°57.3	8°23.2	5	255°11.8	7°17.4	5	255°26.9	6°10.7	5	255°42.4	5°03.0
6	269°43.8	9°26.8	6	269°57.5	8°22.3	6	270°12.0	7°16.5	6	270°27.1	6°09.7	6	270°42.7	5°02.0
7	284°43.9	9°25.9	7	284°57.7	8°21.4	7	285°12.2	7°15.6	7	285°27.3	6°08.8	7	285°42.9	5°01.1
8	299°44.1	9°25.0	8	299°57.9	8°20.5	8	300°12.4	7°14.7	8	300°27.5	6°07.9	8	300°43.1	5°00.2
9	314°44.3	9°24.1	9	314°58.1	8°19.5	9	315°12.6	7°13.8	9	315°27.7	6°06.9	9	315°43.3	4°59.2
10	329°44.5	9°23.2	10	329°58.3	8°18.6	10	330°12.8	7°12.8	10	330°27.9	6°06.0	10	330°43.5	4°58.3
11	344°44.7	9°22.4	11	344°58.5	8°17.7	11	345°13.0	7°11.9	11	345°28.2	6°05.1	11	345°43.8	4°57.3
12	359°44.9	9°21.5	12	359°58.7	8°16.8	12	0°13.2	7°11.0	12	0°28.4	6°04.1	12	0°44.0	4°56.4
13	14°45.1	9°20.6	13	14°58.9	8°15.9	13	15°13.5	7°10.1	13	15°28.6	6°03.2	13	15°44.2	4°55.4
14	29°45.2	9°19.7	14	29°59.1	8°15.0	14	30°13.7	7°09.2	14	30°28.8	6°02.3	14	30°44.4	4°54.5
15	44°45.4	9°18.8	15	44°59.3	8°14.1	15	45°13.9	7°08.2	15	45°29.0	6°01.3	15	45°44.6	4°53.5
16	59°45.6	9°17.9	16	59°59.5	8°13.2	16	60°14.1	7°07.3	16	60°29.2	6°00.4	16	60°44.9	4°52.6
17	74°45.8	9°17.0	17	74°59.7	8°12.3	17	75°14.3	7°06.4	17	75°29.4	5°59.5	17	75°45.1	4°51.6
18	89°46.0	9°16.1	18	89°59.9	8°11.4	18	90°14.5	7°05.5	18	90°29.7	5°58.5	18	90°45.3	4°50.7
19	104°46.2	9°15.2	19	105°00.1	8°10.5	19	105°14.7	7°04.5	19	105°29.9	5°57.6	19	105°45.5	4°49.7
20	119°46.4	9°14.3	20	120°00.3	8°09.6	20	120°14.9	7°03.6	20	120°30.1	5°56.6	20	120°45.7	4°48.8
21	134°46.6	9°13.5	21	135°00.5	8°08.7	21	135°15.1	7°02.7	21	135°30.3	5°55.7	21	135°45.9	4°47.8
22	149°46.8	9°12.6	22	150°00.7	8°07.8	22	150°15.3	7°01.8	22	150°30.5	5°54.8	22	150°46.2	4°46.9
23	164°46.9	9°11.7	23	165°00.9	8°06.8	23	165°15.5	7°00.8	23	165°30.7	5°53.8	23	165°46.4	4°45.9
	SD.=15.8	d=-0.9		SD.=15.8	d=-0.9		SD.=15.9	d=-0.9		SD.=15.9	d=-0.9		SD.=15.9	d=-0.9

30	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec
0	179°47.1	9°10.8	0	180°01.1	8°05.9	0	180°15.7	6°59.9	0	180°30.9	5°52.9	0	180°46.6	4°45.0
1	194°47.3	9°09.9	1	195°01.3	8°05.0	1	195°15.9	6°59.0	1	195°31.2	5°52.0	1	195°46.8	4°44.1
2	209°47.5	9°09.0	2	210°01.5	8°04.1	2	210°16.1	6°58.1	2	210°31.4	5°51.0	2	210°47.0	4°43.1
3	224°47.7	9°08.1	3	225°01.7	8°03.2	3	225°16.4	6°57.1	3	225°31.6	5°50.1	3	225°47.3	4°42.2
4	239°47.9	9°07.2	4	240°01.9	8°02.3	4	240°16.6	6°56.2	4	240°31.8	5°49.1	4	240°47.5	4°41.2
5	254°48.1	9°06.3	5	255°02.1	8°01.4	5	255°16.8	6°55.3	5	255°32.0	5°48.2	5	255°47.7	4°40.3
6	269°48.3	9°05.4	6	270°02.3	8°00.5	6	270°17.0	6°54.4	6	270°32.2	5°47.3	6	270°47.9	4°39.3
7	284°48.5	9°04.5	7	285°02.5	7°59.6	7	285°17.2	6°53.4	7	285°32.5	5°46.3	7	285°48.1	4°38.4
8	299°48.6	9°03.6	8	300°02.7	7°58.7	8	300°17.4	6°52.5	8	300°32.7	5°45.4	8	300°48.4	4°37.4
9	314°48.8	9°02.7	9	315°02.9	7°57.7	9	315°17.6	6°51.6	9	315°32.9	5°44.5	9	315°48.6	4°36.5
10	329°49.0	9°01.9	10	330°03.1	7°56.8	10	330°17.8	6°50.7	10	330°33.1	5°43.5	10	330°48.8	4°35.5
11	344°49.2	9°01.0	11	345°03.3	7°55.9	11	345°18.0	6°49.7	11	345°33.3	5°42.6	11	345°49.0	4°34.6
12	359°49.4	9°00.1	12	0°03.5	7°55.0	12	0°18.2	6°48.8	12	0°33.5	5°41.6	12	0°49.3	4°33.6
13	14°49.6	8°59.2	13	15°03.7	7°54.1	13	15°18.4	6°47.9	13	15°33.7	5°40.7	13	15°49.5	4°32.7
14	29°49.8	8°58.3	14	30°03.9	7°53.2	14	30°18.6	6°47.0	14	30°34.0	5°39.8	14	30°49.7	4°31.7
15	44°50.0	8°57.4	15	45°04.1	7°52.3	15	45°18.9	6°46.0	15	45°34.2	5°38.8	15	45°49.9	4°30.8
16	59°50.2	8°56.5	16	60°04.3	7°51.4	16	60°19.1	6°45.1	16	60°34.4	5°37.9	16	60°50.1	4°29.8
17	74°50.4	8°55.6	17	75°04.5	7°50.4	17	75°19.3	6°44.2	17	75°34.6	5°36.9	17	75°50.4	4°28.9
18	89°50.6	8°54.7	18	90°04.7	7°49.5	18	90°19.5	6°43.3	18	90°34.8	5°36.0	18	90°50.6	4°27.9
19	104°50.7	8°53.8	19	105°04.9	7°48.6	19	105°19.7	6°42.3	19	105°35.0	5°35.1	19	105°50.8	4°27.0
20	119°50.9	8°52.9	20	120°05.1	7°47.7	20	120°19.9	6°41.4	20	120°35.3	5°34.1	20	120°51.0	4°26.0
21	134°51.1	8°52.0	21	135°05.3	7°46.8	21	135°20.1	6°40.5	21	135°35.5	5°33.2	21	135°51.2	4°25.1
22	149°51.3	8°51.1	22	150°05.5	7°45.9	22	150°20.3	6°39.5	22	150°35.7	5°32.2	22	150°51.5	4°24.1
23	164°51.5	8°50.2	23	165°05.7	7°45.0	23	165°20.5	6°38.6	23	165°35.9	5°31.3	23	165°51.7	4°23.2
	SD.=15.8	d=-0.9		SD.=15.8	d=-0.9		SD.=15.9	d=-0.9		SD.=15.9	d=-0.9		SD.=15.9	d=-0.9

31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	179°51.7	8°49.3	0	180°05.9	7°44.1	0	180°20.7	6°37.7	0	180°36.1	5°30.4	0	180°51.9	4°22.2
1	194°51.9	8°48.4	1	195°06.1	7°43.1	1	195°21.0	6°36.8	1	195°36.3	5°29.4	1	195°52.1	4°21.2
2	209°52.1	8°47.5	2	210°06.3	7°42.2	2	210°21.2	6°35.8	2	210°36.6	5°28.5	2	210°52.3	4°20.3
3	224°52.3	8°46.6	3	225°06.5	7°41.3	3	225°21.4	6°34.9	3	225°36.8	5°27.5	3	225°52.6	4°19.3
4	239°52.5	8°45.7	4	240°06.7	7°40.4	4	240°21.6	6°34.0	4	240°37.0	5°26.6	4	240°52.8	4°18.4
5	254°52.7	8°44.8	5	255°06.9	7°39.5	5	255°21.8	6°33.0	5	255°37.2	5°25.6	5	255°53.0	4°17.4
6	269°52.9	8°43.9	6	270°07.1	7°38.6	6	270°22.0	6°32.1	6	270°37.4	5°24.7	6	270°53.2	4°16.5
7	284°53.1	8°43.0	7	285°07.3	7°37.6	7	285°22.2	6°31.2	7	285°37.6	5°23.8	7	285°53.5	4°15.5
8	299°53.2	8°42.1	8	300°07.5	7°36.7	8	300°22.4	6°30.2	8	300°37.9	5°22.8	8	300°53.7	4°14.6
9	314°53.4	8°41.2	9	315°07.7	7°35.8	9	315°22.6	6°29.3	9	315°38.1	5°21.9	9	315°53.9	4°13.6
10	329°53.6	8°40.3	10	330°07.9	7°34.9	10	330°22.9	6°28.4	10	330°38.3	5°20.9	10	330°54.1	4°12.7
11	344°53.8	8°39.4	11	345°08.1	7°34.0	11	345°23.1	6°27.5	11	345°38.5	5°20.0	11	345°54.3	4°11.7
12	359°54.0	8°38.5	12	0°08.3	7°33.1	12	0°23.3	6°26.5	12	0°38.7	5°19.0	12	0°54.6	4°10.8
13	14°54.2	8°37.6	13	15°08.5	7°32.1	13	15°23.5	6°25.6	13	15°38.9	5°18.1	13	15°54.8	4°09.8
14	29°54.4	8°36.7	14	30°08.7	7°31.2	14	30°23.7	6°24.7	14	30°39.2	5°17.2	14	30°55.0	4°08.9
15	44°54.6	8°35.8	15	45°08.9	7°30.3	15	45°23.9	6°23.7	15	45°39.4	5°16.2	15	45°55.2	4°07.9
16	59°54.8	8°34.9	16	60°09.1	7°29.4	16	60°24.1	6°22.8	16	60°39.6	5°15.3	16	60°55.4	4°07.0
17	74°55.0	8°34.0	17	75°09.4	7°28.5	17	75°24.3	6°21.9	17	75°39.8	5°14.3	17	75°55.7	4°06.0
18	89°55.2	8°33.1	18	90°09.6	7°27.6	18	90°24.5	6°20.9	18	90°40.0	5°13.4	18	90°55.9	4°05.1
19	104°55.4	8°32.2	19	105°09.8	7°26.6	19	105°24.8	6°20.0	19	105°40.3	5°12.4	19	105°56.1	4°04.1
20	119°55.6	8°31.3	20	120°10.0	7°25.7	20	120°25.0	6°19.1	20	120°40.5	5°11.5	20	120°56.3	4°03.1
21	134°55.8	8°30.4	21	135°10.2	7°24.8	21	135°25.2	6°18.1	21	135°40.7	5°10.6	21	135°56.6	4°02.2
22	149°56.0	8°29.5	22	150°10.4	7°23.9	22	150°25.4	6°17.2	22	150°40.9	5°09.6	22	150°56.8	4°01.2
23	164°56.2	8°28.6	23	165°10.6	7°23.0	23	165°25.6	6°16.3	23	165°41.1	5°08.7	23	165°57.0	4°00.3
	SD.=15.8	d=-0.9		SD.=15.9	d=-1.0									

13	GHA	Dec	16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec
0	180°57.2	3°59.3	0	181°13.3	2°50.3	0	181°29.4	1°40.8	0	181°45.5	0°31.0	0	182°01.2	-0°39.1
1	195°57.4	3°58.4	1	196°13.5	2°49.3	1	196°29.7	1°39.8	1	196°45.7	0°30.0	1	197°01.5	-0°40.1
2	210°57.7	3°57.4	2	211°13.8	2°48.4	2	211°29.9	1°38.9	2	211°45.9	0°29.0	2	212°01.7	-0°41.0
3	225°57.9	3°56.5	3	226°14.0	2°47.4	3	226°30.1	1°37.9	3	226°46.1	0°28.0	3	227°01.9	-0°42.0
4	240°58.1	3°55.5	4	241°14.2	2°46.5	4	241°30.3	1°36.9	4	241°46.3	0°27.1	4	242°02.1	-0°43.0
5	255°58.3	3°54.6	5	256°14.4	2°45.5	5	256°30.6	1°36.0	5	256°46.6	0°26.1	5	257°02.3	-0°44.0
6	270°58.6	3°53.6	6	271°14.7	2°44.5	6	271°30.8	1°35.0	6	271°46.8	0°25.1	6	272°02.5	-0°44.9
7	285°58.8	3°52.6	7	286°14.9	2°43.6	7	286°31.0	1°34.0	7	286°47.0	0°24.2	7	287°02.8	-0°45.9
8	300°59.0	3°51.7	8	301°15.1	2°42.6	8	301°31.2	1°33.1	8	301°47.2	0°23.2	8	302°03.0	-0°46.9
9	315°59.2	3°50.7	9	316°15.3	2°41.6	9	316°31.4	1°32.1	9	316°47.5	0°22.2	9	317°03.2	-0°47.9
10	330°59.5	3°49.8	10	331°15.5	2°40.7	10	331°31.7	1°31.1	10	331°47.7	0°21.2	10	332°03.4	-0°48.8
11	345°59.7	3°48.8	11	346°15.8	2°39.7	11	346°31.9	1°30.2	11	346°47.9	0°20.3	11	347°03.6	-0°49.8
12	0°59.9	3°47.9	12	1°16.0	2°38.8	12	1°32.1	1°29.2	12	1°48.1	0°19.3	12	2°03.8	-0°50.8
13	16°00.1	3°46.9	13	16°16.2	2°37.8	13	16°32.3	1°28.2	13	16°48.3	0°18.3	13	17°04.0	-0°51.8
14	31°00.3	3°46.0	14	31°16.4	2°36.8	14	31°32.6	1°27.2	14	31°48.6	0°17.3	14	32°04.3	-0°52.7
15	46°00.6	3°45.0	15	46°16.7	2°35.9	15	46°32.8	1°26.3	15	46°48.8	0°16.4	15	47°04.5	-0°53.7
16	61°00.8	3°44.0	16	61°16.9	2°34.9	16	61°33.0	1°25.3	16	61°49.0	0°15.4	16	62°04.7	-0°54.7
17	76°01.0	3°43.1	17	76°17.1	2°33.9	17	76°33.2	1°24.3	17	76°49.2	0°14.4	17	77°04.9	-0°55.7
18	91°01.2	3°42.1	18	91°17.3	2°33.0	18	91°33.5	1°23.4	18	91°49.4	0°13.5	18	92°05.1	-0°56.6
19	106°01.5	3°41.2	19	106°17.6	2°32.0	19	106°33.7	1°22.4	19	106°49.7	0°12.5	19	107°05.3	-0°57.6
20	121°01.7	3°40.2	20	121°17.8	2°31.0	20	121°33.9	1°21.4	20	121°49.9	0°11.5	20	122°05.6	-0°58.6
21	136°01.9	3°39.3	21	136°18.0	2°30.1	21	136°34.1	1°20.5	21	136°50.1	0°10.5	21	137°05.8	-0°59.5
22	151°02.1	3°38.3	22	151°18.2	2°29.1	22	151°34.4	1°19.5	22	151°50.3	0°09.6	22	152°06.0	-1°00.5
23	166°02.3	3°37.3	23	166°18.5	2°28.2	23	166°34.6	1°18.5	23	166°50.5	0°08.6	23	167°06.2	-1°01.5
	SD.=15.9	d=-1.0												

14	GHA	Dec	17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec
0	181°02.6	3°36.4	0	181°18.7	2°27.2	0	181°34.8	1°17.6	0	181°50.8	0°07.6	0	182°06.4	-1°02.5
1	196°02.8	3°35.4	1	196°18.9	2°26.2	1	196°35.0	1°16.6	1	196°51.0	0°06.6	1	197°06.6	-1°03.4
2	211°03.0	3°34.5	2	211°19.1	2°25.3	2	211°35.2	1°15.6	2	211°51.2	0°05.7	2	212°06.8	-1°04.4
3	226°03.2	3°33.5	3	226°19.4	2°24.3	3	226°35.5	1°14.6	3	226°51.4	0°04.7	3	227°07.1	-1°05.4
4	241°03.5	3°32.6	4	241°19.6	2°23.3	4	241°35.7	1°13.7	4	241°51.6	0°03.7	4	242°07.3	-1°06.4
5	256°03.7	3°31.6	5	256°19.8	2°22.4	5	256°35.9	1°12.7	5	256°51.9	0°02.8	5	257°07.5	-1°07.3
6	271°03.9	3°30.6	6	271°20.0	2°21.4	6	271°36.1	1°11.7	6	271°52.1	0°01.8	6	272°07.7	-1°08.3
7	286°04.1	3°29.7	7	286°20.3	2°20.4	7	286°36.4	1°10.8	7	286°52.3	0°00.8	7	287°07.9	-1°09.3
8	301°04.4	3°28.7	8	301°20.5	2°19.5	8	301°36.6	1°09.8	8	301°52.5	-0°00.2	8	302°08.1	-1°10.3
9	316°04.6	3°27.8	9	316°20.7	2°18.5	9	316°36.8	1°08.8	9	316°52.7	-0°01.9	9	317°08.3	-1°11.2
10	331°04.8	3°26.8	10	331°20.9	2°17.5	10	331°37.0	1°07.9	10	331°53.0	-0°02.1	10	332°08.6	-1°12.2
11	346°05.0	3°25.8	11	346°21.2	2°16.6	11	346°37.2	1°06.9	11	346°53.2	-0°03.1	11	347°08.8	-1°13.2
12	1°05.2	3°24.9	12	1°21.4	2°15.6	12	1°37.5	1°05.9	12	1°53.4	-0°04.1	12	2°09.0	-1°14.2
13	16°05.5	3°23.9	13	16°21.6	2°14.6	13	16°37.7	1°04.9	13	16°53.6	-0°05.0	13	17°09.2	-1°15.1
14	31°05.7	3°23.0	14	31°21.8	2°13.7	14	31°37.9	1°04.0	14	31°53.8	-0°06.0	14	32°09.4	-1°16.1
15	46°05.9	3°22.0	15	46°22.0	2°12.7	15	46°38.1	1°03.0	15	46°54.0	-0°07.0	15	47°09.6	-1°17.1
16	61°06.1	3°21.1	16	61°22.3	2°11.7	16	61°38.4	1°02.0	16	61°54.3	-0°07.9	16	62°09.8	-1°18.0
17	76°06.4	3°20.1	17	76°22.5	2°10.8	17	76°38.6	1°01.1	17	76°54.5	-0°08.9	17	77°10.1	-1°19.0
18	91°06.6	3°19.1	18	91°22.7	2°09.8	18	91°38.8	1°00.1	18	91°54.7	-0°09.9	18	92°10.3	-1°20.0
19	106°06.8	3°18.2	19	106°22.9	2°08.9	19	106°39.0	0°59.1	19	106°54.9	-0°10.9	19	107°10.5	-1°21.0
20	121°07.0	3°17.2	20	121°23.2	2°07.9	20	121°39.3	0°58.2	20	121°55.1	-0°11.8	20	122°10.7	-1°21.9
21	136°07.3	3°16.3	21	136°23.4	2°06.9	21	136°39.5	0°57.2	21	136°55.4	-0°12.8	21	137°10.9	-1°22.9
22	151°07.5	3°15.3	22	151°23.6	2°06.0	22	151°39.7	0°56.2	22	151°55.6	-0°13.8	22	152°11.1	-1°23.9
23	166°07.7	3°14.3	23	166°23.8	2°05.0	23	166°39.9	0°55.2	23	166°55.8	-0°14.8	23	167°11.3	-1°24.9
	SD.=15.9	d=-1.0		SD.=15.9	d=-1.0									

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	181°07.9	3°13.4	0	181°24.1	2°04.0	0	181°40.1	0°54.3	0	181°56.0	-0°15.7	0	182°11.6	-1°25.8
1	196°08.2	3°12.4	1	196°24.3	2°03.1	1	196°40.4	0°53.3	1	196°56.2	-0°16.7	1	197°11.8	-1°26.8
2	211°08.4	3°11.5	2	211°24.5	2°02.1	2	211°40.6	0°52.3	2	211°56.5	-0°17.7	2	212°12.0	-1°27.8
3	226°08.6	3°10.5	3	226°24.7	2°01.1	3	226°40.8	0°51.4	3	226°56.7	-0°18.7	3	227°12.2	-1°28.8
4	241°08.8	3°09.5	4	241°25.0	2°00.2	4	241°41.0	0°50.4	4	241°56.9	-0°19.6	4	242°12.4	-1°29.7
5	256°09.1	3°08.6	5	256°25.2	1°59.2	5	256°41.3	0°49.4	5	256°57.1	-0°20.6	5	257°12.6	-1°30.7
6	271°09.3	3°07.6	6	271°25.4	1°58.2	6	271°41.5	0°48.4	6	271°57.3	-0°21.6	6	272°12.8	-1°31.7
7	286°09.5	3°06.7	7	286°25.6	1°57.3	7	286°41.7	0°47.5	7	286°57.5	-0°22.5	7	287°13.0	-1°32.7
8	301°09.7	3°05.7	8	301°25.9	1°56.3	8	301°41.9	0°46.5	8	301°57.8	-0°23.5	8	302°13.3	-1°33.6
9	316°09.9	3°04.7	9	316°26.1	1°55.3	9	316°42.1	0°45.5	9	316°58.0	-0°24.5	9	317°13.5	-1°34.6
10	331°10.2	3°03.8	10	331°26.3	1°54.4	10	331°42.4	0°44.6	10	331°58.2	-0°25.5	10	332°13.7	-1°35.6
11	346°10.4	3°02.8	11	346°26.5	1°53.4	11	346°42.6	0°43.6	11	346°58.4	-0°26.4	11	347°13.9	-1°36.5
12	1°10.6	3°01.9	12	1°26.8	1°52.4	12	1°42.8	0°42.6	12	1°58.6	-0°27.4	12	2°14.1	-1°37.5
13	16°10.8	3°00.9	13	16°27.0	1°51.5	13	16°43.0	0°41.6	13	16°58.8	-0°28.4	13	17°14.3	-1°38.5
14	31°11.1	2°59.9	14	31°27.2	1°50.5	14	31°43.2	0°40.7	14	31°59.1	-0°29.4	14	32°14.5	-1°39.5
15	46°11.3	2°59.0	15	46°27.4	1°49.5	15	46°43.5	0°39.7	15	46°59.3	-0°30.3	15	47°14.7	-1°40.4
16	61°11.5	2°58.0	16	61°27.6	1°48.5	16	61°43.7	0°38.7	16	61°59.5	-0°31.3	16	62°14.9	-1°41.4
17	76°11.7	2°57.0	17	76°27.9	1°47.6	17	76°43.9	0°37.8	17	76°59.7	-0°32.3	17	77°15.2	-1°42.4
18	91°12.0	2°56.1	18	91°28.1	1°46.6	18	91°44.1	0°36.8	18	91°59.9	-0°33.3	18	92°15.4	-1°43.4
19	106°12.2	2°55.1	19	106°28.3	1°45.6	19	106°44.4	0°35.8	19	107°00.2	-0°34.2	19	107°15.6	-1°44.3
20	121°12.4	2°54.2	20	121°28.5	1°44.7	20	121°44.6	0°34.8	20	122°00.4	-0°35.2	20	122°15.8	-1°45.3
21	136°12.6	2°53.2	21	136°28.8	1°43.7	21	136°44.8	0°33.9	21	137°00.6	-0°36.2	21	137°16.0	-1°46.3
22	151°12.9	2°52.2	22	151°29.0	1°42.7	22	151°45.0	0°32.9	22	152°00.8	-0°37.2	22	152°16.2	-1°47.3
23	166°13.1	2°51.3	23	166°29.2	1°41.8	23	166°45.2	0°31.9	23	167°01.0	-0°38.1	23	167°16.4	-1°48.2
	SD.=15.9	d=-1.0		SD.=16.0	d=-1.0									

28	GHA	Dec	01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec
0	182°16.6	-1°49.2	0	182°31.5	-2°59.2	0	182°45.8	-4°08.9	0	182°59.4	-5°18.1	0	183°12.1	-6°26.7
1	197°16.8	-1°50.2	1	197°31.7	-3°00.2	1	197°46.0	-4°09.8	1	197°59.6	-5°19.1	1	198°12.3	-6°27.7
2	212°17.1	-1°51.1	2	212°31.9	-3°01.1	2	212°46.2	-4°10.8	2	212°59.8	-5°20.0	2	213°12.5	-6°28.6
3	227°17.3	-1°52.1	3	227°32.1	-3°02.1	3	227°46.4	-4°11.8	3	227°60.0	-5°21.0	3	228°12.6	-6°29.6
4	242°17.5	-1°53.1	4	242°32.3	-3°03.1	4	242°46.6	-4°12.7	4	243°00.1	-5°22.0	4	243°12.8	-6°30.5
5	257°17.7	-1°54.1	5	257°32.5	-3°04.0	5	257°46.8	-4°13.7	5	258°00.3	-5°22.9	5	258°13.0	-6°31.5
6	272°17.9	-1°55.0	6	272°32.8	-3°05.0	6	272°47.0	-4°14.7	6	273°00.5	-5°23.9	6	273°13.1	-6°32.4
7	287°18.1	-1°56.0	7	287°33.0	-3°06.0	7	287°47.2	-4°15.6	7	288°00.7	-5°24.8	7	288°13.3	-6°33.4
8	302°18.3	-1°57.0	8	302°33.2	-3°06.9	8	302°47.4	-4°16.6	8	303°00.9	-5°25.8	8	303°13.5	-6°34.3
9	317°18.5	-1°58.0	9	317°33.4	-3°07.9	9	317°47.6	-4°17.6	9	318°01.1	-5°26.7	9	318°13.7	-6°35.3
10	332°18.7	-1°58.9	10	332°33.6	-3°08.9	10	332°47.8	-4°18.5	10	333°01.2	-5°27.7	10	333°13.8	-6°36.2
11	347°18.9	-1°59.9	11	347°33.8	-3°09.9	11	347°48.0	-4°19.5	11	348°01.4	-5°28.7	11	348°14.0	-6°37.2
12	2°19.2	-2°00.9	12	2°34.0	-3°10.8	12	2°48.2	-4°20.5	12	3°01.6	-5°29.6	12	3°14.2	-6°38.1
13	17°19.4	-2°01.8	13	17°34.2	-3°11.8	13	17°48.3	-4°21.4	13	18°01.8	-5°30.6	13	18°14.3	-6°39.1
14	32°19.6	-2°02.8	14	32°34.4	-3°12.8	14	32°48.5	-4°22.4	14	33°02.0	-5°31.5	14	33°14.5	-6°40.0
15	47°19.8	-2°03.8	15	47°34.6	-3°13.7	15	47°48.7	-4°23.3	15	48°02.1	-5°32.5	15	48°14.7	-6°41.0
16	62°20.0	-2°04.8	16	62°34.8	-3°14.7	16	62°48.9	-4°24.3	16	63°02.3	-5°33.4	16	63°14.8	-6°41.9
17	77°20.2	-2°05.7	17	77°35.0	-3°15.7	17	77°49.1	-4°25.3	17	78°02.5	-5°34.4	17	78°15.0	-6°42.8
18	92°20.4	-2°06.7	18	92°35.2	-3°16.6	18	92°49.3	-4°26.2	18	93°02.7	-5°35.3	18	93°15.2	-6°43.8
19	107°20.6	-2°07.7	19	107°35.4	-3°17.6	19	107°49.5	-4°27.2	19	108°02.9	-5°36.3	19	108°15.3	-6°44.7
20	122°20.8	-2°08.7	20	122°35.6	-3°18.6	20	122°49.7	-4°28.2	20	123°03.0	-5°37.3	20	123°15.5	-6°45.7
21	137°21.0	-2°09.6	21	137°35.8	-3°19.5	21	137°49.9	-4°29.1	21	138°03.2	-5°38.2	21	138°15.7	-6°46.6
22	152°21.2	-2°10.6	22	152°36.0	-3°20.5	22	152°50.1	-4°30.1	22	153°03.4	-5°39.2	22	153°15.8	-6°47.6
23	167°21.5	-2°11.6	23	167°36.2	-3°21.5	23	167°50.3	-4°31.1	23	168°03.6	-5°40.1	23	168°16.0	-6°48.5
	SD.=16.0	d=-1.0		SD.=16.0	d=-0.9									
29	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec
0	182°21.7	-2°12.5	0	182°36.4	-3°22.5	0	182°50.4	-4°32.0	0	183°03.8	-5°41.1	0	183°16.2	-6°49.5
1	197°21.9	-2°13.5	1	197°36.6	-3°23.4	1	197°50.6	-4°33.0	1	198°03.9	-5°42.0	1	198°16.3	-6°50.4
2	212°22.1	-2°14.5	2	212°36.8	-3°24.4	2	212°50.8	-4°33.9	2	213°04.1	-5°43.0	2	213°16.5	-6°51.3
3	227°22.3	-2°15.5	3	227°37.0	-3°25.4	3	227°51.0	-4°34.9	3	228°04.3	-5°43.9	3	228°16.6	-6°52.3
4	242°22.5	-2°16.4	4	242°37.2	-3°26.3	4	242°51.2	-4°35.9	4	243°04.5	-5°44.9	4	243°16.8	-6°53.2
5	257°22.7	-2°17.4	5	257°37.4	-3°27.3	5	257°51.4	-4°36.8	5	258°04.6	-5°45.8	5	258°17.0	-6°54.2
6	272°22.9	-2°18.4	6	272°37.6	-3°28.3	6	272°51.6	-4°37.8	6	273°04.8	-5°46.8	6	273°17.1	-6°55.1
7	287°23.1	-2°19.4	7	287°37.8	-3°29.2	7	287°51.8	-4°38.8	7	288°05.0	-5°47.8	7	288°17.3	-6°56.1
8	302°23.3	-2°20.3	8	302°38.0	-3°30.2	8	302°52.0	-4°39.7	8	303°05.2	-5°48.7	8	303°17.5	-6°57.0
9	317°23.5	-2°21.3	9	317°38.2	-3°31.2	9	317°52.2	-4°40.7	9	318°05.4	-5°49.7	9	318°17.6	-6°57.9
10	332°23.7	-2°22.3	10	332°38.4	-3°32.1	10	332°52.3	-4°41.6	10	333°05.5	-5°50.6	10	333°17.8	-6°58.9
11	347°23.9	-2°23.2	11	347°38.6	-3°33.1	11	347°52.5	-4°42.6	11	348°05.7	-5°51.6	11	348°18.0	-6°59.8
12	2°24.2	-2°24.2	12	2°38.8	-3°34.1	12	2°52.7	-4°43.6	12	3°05.9	-5°52.5	12	3°18.1	-7°00.8
13	17°24.4	-2°25.2	13	17°39.0	-3°35.0	13	17°52.9	-4°44.5	13	18°06.1	-5°53.5	13	18°18.3	-7°01.7
14	32°24.6	-2°26.2	14	32°39.2	-3°36.0	14	32°53.1	-4°45.5	14	33°06.2	-5°54.4	14	33°18.4	-7°02.7
15	47°24.8	-2°27.1	15	47°39.4	-3°37.0	15	47°53.3	-4°46.5	15	48°06.4	-5°55.4	15	48°18.6	-7°03.6
16	62°25.0	-2°28.1	16	62°39.6	-3°37.9	16	62°53.5	-4°47.4	16	63°06.6	-5°56.3	16	63°18.8	-7°04.5
17	77°25.2	-2°29.1	17	77°39.8	-3°38.9	17	77°53.7	-4°48.4	17	78°06.8	-5°57.3	17	78°18.9	-7°05.5
18	92°25.4	-2°30.0	18	92°40.0	-3°39.9	18	92°53.9	-4°49.3	18	93°06.9	-5°58.2	18	93°19.1	-7°06.4
19	107°25.6	-2°31.0	19	107°40.2	-3°40.9	19	107°54.0	-4°50.3	19	108°07.1	-5°59.2	19	108°19.3	-7°07.4
20	122°25.8	-2°32.0	20	122°40.4	-3°41.8	20	122°54.2	-4°51.3	20	123°07.3	-6°00.1	20	123°19.4	-7°08.3
21	137°26.0	-2°33.0	21	137°40.5	-3°42.8	21	137°54.4	-4°52.2	21	138°07.5	-6°01.1	21	138°19.6	-7°09.3
22	152°26.2	-2°33.9	22	152°40.7	-3°43.8	22	152°54.6	-4°53.2	22	153°07.6	-6°02.0	22	153°19.7	-7°10.2
23	167°26.4	-2°34.9	23	167°40.9	-3°44.7	23	167°54.8	-4°54.1	23	168°07.8	-6°03.0	23	168°19.9	-7°11.1
	SD.=16.0	d=-1.0		SD.=16.0	d=-0.9									
30	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec	12	GHA	Dec
0	182°26.6	-2°35.9	0	182°41.1	-3°45.7	0	182°55.0	-4°55.1	0	183°08.0	-6°04.0	0	183°20.1	-7°12.1
1	197°26.8	-2°36.8	1	197°41.3	-3°46.7	1	197°55.2	-4°56.1	1	198°08.2	-6°04.9	1	198°20.2	-7°13.0
2	212°27.0	-2°37.8	2	212°41.5	-3°47.6	2	212°55.3	-4°57.0	2	213°08.3	-6°05.9	2	213°20.4	-7°14.0
3	227°27.2	-2°38.8	3	227°41.7	-3°48.6	3	227°55.5	-4°58.0	3	228°08.5	-6°06.8	3	228°20.5	-7°14.9
4	242°27.5	-2°39.8	4	242°41.9	-3°49.6	4	242°55.7	-4°58.9	4	243°08.7	-6°07.8	4	243°20.7	-7°15.8
5	257°27.7	-2°40.7	5	257°42.1	-3°50.5	5	257°55.9	-4°59.9	5	258°08.9	-6°08.7	5	258°20.9	-7°16.8
6	272°27.9	-2°41.7	6	272°42.3	-3°51.5	6	272°56.1	-5°00.9	6	273°09.0	-6°09.7	6	273°21.0	-7°17.7
7	287°28.1	-2°42.7	7	287°42.5	-3°52.5	7	287°56.3	-5°01.8	7	288°09.2	-6°10.6	7	288°21.2	-7°18.7
8	302°28.3	-2°43.6	8	302°42.7	-3°53.4	8	302°56.5	-5°02.8	8	303°09.4	-6°11.6	8	303°21.3	-7°19.6
9	317°28.5	-2°44.6	9	317°42.9	-3°54.4	9	317°56.6	-5°03.7	9	318°09.6	-6°12.5	9	318°21.5	-7°20.5
10	332°28.7	-2°45.6	10	332°43.1	-3°55.4	10	332°56.8	-5°04.7	10	333°09.7	-6°13.5	10	333°21.7	-7°21.5
11	347°28.9	-2°46.6	11	347°43.3	-3°56.3	11	347°57.0	-5°05.7	11	348°09.9	-6°14.4	11	348°21.8	-7°22.4
12	2°29.1	-2°47.5	12	2°43.5	-3°57.3	12	2°57.2	-5°06.6	12	3°10.1	-6°15.4	12	3°22.0	-7°23.3
13	17°29.3	-2°48.5	13	17°43.7	-3°58.3	13	17°57.4	-5°07.6	13	18°10.2	-6°16.3	13	18°22.1	-7°24.3
14	32°29.5	-2°49.5	14	32°43.9	-3°59.2	14	32°57.6	-5°08.5	14	33°10.4	-6°17.3	14	33°22.3	-7°25.2
15	47°29.7	-2°50.4	15	47°44.1	-4°00.2	15	47°57.8	-5°09.5	15	48°10.6	-6°18.2	15	48°22.4	-7°26.2
16	62°29.9	-2°51.4	16	62°44.3	-4°01.2	16	62°57.9	-5°10.5	16	63°10.8	-6°19.2	16	63°22.6	-7°27.1
17	77°30.1	-2°52.4	17	77°44.5	-4°02.1	17	77°58.1	-5°11.4	17	78°10.9	-6°20.1	17	78°22.8	-7°28.0
18	92°30.3	-2°53.4	18	92°44.7	-4°									

13	GHA	Dec	16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec
0	183°23.8	-7°34.6	0	183°34.4	-8°41.5	0	183°43.7	-9°47.3	0	183°51.5	-10°51.8	0	183°57.8	-11°54.9
1	198°24.0	-7°35.5	1	198°34.5	-8°42.4	1	198°43.8	-9°48.2	1	198°51.6	-10°52.7	1	198°57.9	-11°55.8
2	213°24.2	-7°36.5	2	213°34.7	-8°43.3	2	213°43.9	-9°49.1	2	213°51.7	-10°53.6	2	213°58.0	-11°56.7
3	228°24.3	-7°37.4	3	228°34.8	-8°44.3	3	228°44.0	-9°50.0	3	228°51.8	-10°54.5	3	228°58.1	-11°57.5
4	243°24.5	-7°38.3	4	243°35.0	-8°45.2	4	243°44.2	-9°50.9	4	243°51.9	-10°55.4	4	243°58.1	-11°58.4
5	258°24.6	-7°39.3	5	258°35.1	-8°46.1	5	258°44.3	-9°51.8	5	258°52.0	-10°56.3	5	258°58.2	-11°59.2
6	273°24.8	-7°40.2	6	273°35.2	-8°47.0	6	273°44.4	-9°52.7	6	273°52.1	-10°57.1	6	273°58.3	-12°00.1
7	288°24.9	-7°41.1	7	288°35.4	-8°47.9	7	288°44.5	-9°53.6	7	288°52.2	-10°58.0	7	288°58.4	-12°01.0
8	303°25.1	-7°42.1	8	303°35.5	-8°48.9	8	303°44.6	-9°54.5	8	303°52.3	-10°58.9	8	303°58.4	-12°01.8
9	318°25.2	-7°43.0	9	318°35.6	-8°49.8	9	318°44.7	-9°55.4	9	318°52.4	-10°59.8	9	318°58.5	-12°02.7
10	333°25.4	-7°43.9	10	333°35.8	-8°50.7	10	333°44.9	-9°56.3	10	333°52.5	-11°00.7	10	333°58.6	-12°03.6
11	348°25.5	-7°44.9	11	348°35.9	-8°51.6	11	348°45.0	-9°57.2	11	348°52.6	-11°01.6	11	348°58.7	-12°04.4
12	3°25.7	-7°45.8	12	3°36.0	-8°52.5	12	3°45.1	-9°58.1	12	3°52.7	-11°02.4	12	3°58.7	-12°05.3
13	18°25.8	-7°46.7	13	18°36.2	-8°53.5	13	18°45.2	-9°59.0	13	18°52.8	-11°03.3	13	18°58.8	-12°06.1
14	33°26.0	-7°47.7	14	33°36.3	-8°54.4	14	33°45.3	-9°59.9	14	33°52.9	-11°04.2	14	33°58.9	-12°07.0
15	48°26.1	-7°48.6	15	48°36.5	-8°55.3	15	48°45.4	-10°00.8	15	48°53.0	-11°05.1	15	48°58.9	-12°07.9
16	63°26.3	-7°49.5	16	63°36.6	-8°56.2	16	63°45.6	-10°01.7	16	63°53.1	-11°06.0	16	63°59.0	-12°08.7
17	78°26.4	-7°50.5	17	78°36.7	-8°57.1	17	78°45.7	-10°02.6	17	78°53.2	-11°06.9	17	78°59.1	-12°09.6
18	93°26.6	-7°51.4	18	93°36.9	-8°58.1	18	93°45.8	-10°03.6	18	93°53.3	-11°07.7	18	93°59.2	-12°10.5
19	108°26.7	-7°52.3	19	108°37.0	-8°59.0	19	108°45.9	-10°04.5	19	108°53.3	-11°08.6	19	108°59.2	-12°11.3
20	123°26.9	-7°53.3	20	123°37.1	-8°59.9	20	123°46.0	-10°05.4	20	123°53.4	-11°09.5	20	123°59.3	-12°12.2
21	138°27.1	-7°54.2	21	138°37.3	-9°00.8	21	138°46.1	-10°06.3	21	138°53.5	-11°10.4	21	138°59.4	-12°13.0
22	153°27.2	-7°55.1	22	153°37.4	-9°01.7	22	153°46.2	-10°07.2	22	153°53.6	-11°11.3	22	153°59.4	-12°13.9
23	168°27.4	-7°56.1	23	168°37.5	-9°02.6	23	168°46.3	-10°08.1	23	168°53.7	-11°12.1	23	168°59.5	-12°14.7
	SD.=16.0	d=-0.9		SD.=16.0	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.9

14	GHA	Dec	17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec
0	183°27.5	-7°57.0	0	183°37.7	-9°03.6	0	183°46.5	-10°09.0	0	183°53.8	-11°13.0	0	183°59.6	-12°15.6
1	198°27.6	-7°57.9	1	198°37.8	-9°04.5	1	198°46.6	-10°09.9	1	198°53.9	-11°13.9	1	198°59.6	-12°16.5
2	213°27.8	-7°58.9	2	213°37.9	-9°05.4	2	213°46.7	-10°10.8	2	213°54.0	-11°14.8	2	213°59.7	-12°17.3
3	228°27.9	-7°59.8	3	228°38.0	-9°06.3	3	228°46.8	-10°11.6	3	228°54.1	-11°15.7	3	228°59.8	-12°18.2
4	243°28.1	-8°00.7	4	243°38.2	-9°07.2	4	243°46.9	-10°12.5	4	243°54.2	-11°16.5	4	243°59.9	-12°19.0
5	258°28.2	-8°01.7	5	258°38.3	-9°08.1	5	258°47.0	-10°13.4	5	258°54.3	-11°17.4	5	258°59.9	-12°19.9
6	273°28.4	-8°02.6	6	273°38.4	-9°09.1	6	273°47.1	-10°14.3	6	273°54.4	-11°18.3	6	273°60.0	-12°20.7
7	288°28.5	-8°03.5	7	288°38.6	-9°10.0	7	288°47.2	-10°15.2	7	288°54.4	-11°19.2	7	289°00.1	-12°21.6
8	303°28.7	-8°04.5	8	303°38.7	-9°10.9	8	303°47.4	-10°16.1	8	303°54.5	-11°20.1	8	304°00.1	-12°22.5
9	318°28.8	-8°05.4	9	318°38.8	-9°11.8	9	318°47.5	-10°17.0	9	318°54.6	-11°20.9	9	319°00.2	-12°23.3
10	333°29.0	-8°06.3	10	333°39.0	-9°12.7	10	333°47.6	-10°17.9	10	333°54.7	-11°21.8	10	334°00.3	-12°24.2
11	348°29.1	-8°07.2	11	348°39.1	-9°13.6	11	348°47.7	-10°18.8	11	348°54.8	-11°22.7	11	349°00.3	-12°25.0
12	3°29.3	-8°08.2	12	3°39.2	-9°14.5	12	3°47.8	-10°19.7	12	3°54.9	-11°23.6	12	4°00.4	-12°25.9
13	18°29.4	-8°09.1	13	18°39.3	-9°15.5	13	18°47.9	-10°20.6	13	18°55.0	-11°24.4	13	19°00.4	-12°26.7
14	33°29.6	-8°10.0	14	33°39.5	-9°16.4	14	33°48.0	-10°21.5	14	33°55.1	-11°25.3	14	34°00.5	-12°27.6
15	48°29.7	-8°11.0	15	48°39.6	-9°17.3	15	48°48.1	-10°22.4	15	48°55.1	-11°26.2	15	49°00.6	-12°28.4
16	63°29.9	-8°11.9	16	63°39.7	-9°18.2	16	63°48.2	-10°23.3	16	63°55.2	-11°27.1	16	64°00.6	-12°29.3
17	78°30.0	-8°12.8	17	78°39.9	-9°19.1	17	78°48.3	-10°24.2	17	78°55.3	-11°27.9	17	79°00.7	-12°30.1
18	93°30.2	-8°13.7	18	93°40.0	-9°20.0	18	93°48.4	-10°25.1	18	93°55.4	-11°28.8	18	94°00.8	-12°31.0
19	108°30.3	-8°14.7	19	108°40.1	-9°20.9	19	108°48.5	-10°26.0	19	108°55.5	-11°29.7	19	109°00.8	-12°31.8
20	123°30.4	-8°15.6	20	123°40.2	-9°21.8	20	123°48.7	-10°26.9	20	123°55.6	-11°30.6	20	124°00.9	-12°32.7
21	138°30.6	-8°16.5	21	138°40.4	-9°22.8	21	138°48.8	-10°27.8	21	138°55.7	-11°31.4	21	139°01.0	-12°33.5
22	153°30.7	-8°17.5	22	153°40.5	-9°23.7	22	153°48.9	-10°28.7	22	153°55.7	-11°32.3	22	154°01.0	-12°34.4
23	168°30.9	-8°18.4	23	168°40.6	-9°24.6	23	168°49.0	-10°29.6	23	168°55.8	-11°33.2	23	169°01.1	-12°35.3
	SD.=16.0	d=-0.9		SD.=16.0	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.9

15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec	27	GHA	Dec
0	183°31.0	-8°19.3	0	183°40.7	-9°25.5	0	183°49.1	-10°30.5	0	183°55.9	-11°34.1	0	184°01.1	-12°36.1
1	198°31.2	-8°20.2	1	198°40.9	-9°26.4	1	198°49.2	-10°31.4	1	198°56.0	-11°34.9	1	199°01.2	-12°37.0
2	213°31.3	-8°21.2	2	213°41.0	-9°27.3	2	213°49.3	-10°32.3	2	213°56.1	-11°35.8	2	214°01.3	-12°37.8
3	228°31.5	-8°22.1	3	228°41.1	-9°28.2	3	228°49.4	-10°33.1	3	228°56.2	-11°36.7	3	229°01.3	-12°38.6
4	243°31.6	-8°23.0	4	243°41.2	-9°29.1	4	243°49.5	-10°34.0	4	243°56.2	-11°37.6	4	244°01.4	-12°39.5
5	258°31.7	-8°23.9	5	258°41.4	-9°30.0	5	258°49.6	-10°34.9	5	258°56.3	-11°38.4	5	259°01.4	-12°40.3
6	273°31.9	-8°24.9	6	273°41.5	-9°31.0	6	273°49.7	-10°35.8	6	273°56.4	-11°39.3	6	274°01.5	-12°41.2
7	288°32.0	-8°25.8	7	288°41.6	-9°31.9	7	288°49.8	-10°36.7	7	288°56.5	-11°40.2	7	289°01.6	-12°42.0
8	303°32.2	-8°26.7	8	303°41.7	-9°32.8	8	303°49.9	-10°37.6	8	303°56.6	-11°41.0	8	304°01.6	-12°42.9
9	318°32.3	-8°27.6	9	318°41.9	-9°33.7	9	318°50.0	-10°38.5	9	318°56.7	-11°41.9	9	319°01.7	-12°43.7
10	333°32.5	-8°28.6	10	333°42.0	-9°34.6	10	333°50.1	-10°39.4	10	333°56.7	-11°42.8	10	334°01.7	-12°44.6
11	348°32.6	-8°29.5	11	348°42.1	-9°35.5	11	348°50.2	-10°40.3	11	348°56.8	-11°43.6	11	349°01.8	-12°45.4
12	3°32.7	-8°30.4	12	3°42.2	-9°36.4	12	3°50.3	-10°41.2	12	3°56.9	-11°44.5	12	4°01.9	-12°46.3
13	18°32.9	-8°31.3	13	18°42.4	-9°37.3	13	18°50.4	-10°42.1	13	18°57.0	-11°45.4	13	19°01.9	-12°47.1
14	33°33.0	-8°32.3	14	33°42.5	-9°38.2	14	33°50.5	-10°42.9	14	33°57.1	-11°46.3	14	34°02.0	-12°48.0
15	48°33.2	-8°33.2	15	48°42.6	-9°39.1	15	48°50.6	-10°43.8	15	48°57.1	-11°47.1	15	49°02.0	-12°48.8
16	63°33.3	-8°34.1	16	63°42.7	-9°40.0	16	63°50.7	-10°44.7	16	63°57.2	-11°48.0	16	64°02.1	-12°49.7
17	78°33.4	-8°35.0	17	78°42.8	-9°40.9	17	78°50.8	-10°45.6	17	78°57.3	-11°48.9	17	79°02.1	-12°50.5
18	93°33.6	-8°36.0	18	93°43.0	-9°41.9	18	93°50.9	-10°46.5	18	93°57.4	-11°49.7	18	94°02.2	-12°51.3
19	108°33.7	-8°36.9	19	108°43.1	-9°42.8	19	108°51.0	-10°47.4	19	108°57.5	-11°50.6	19	109°02.2	-12°52.2
20	123°33.9	-8°37.8	20	123°43.2	-9°43.7	20	123°51.1	-10°48.3	20	123°57.5	-11°51.5	20	124°02.3	-12°53.0
21	138°34.0	-8°38.7	21	138°43.3	-9°44.6	21	138°51.2	-10°49.2	21	138°57.6	-11°52.3	21	139°02.4	-12°53.9
22	153°34.1	-8°39.6	22	153°43.4	-9°45.5	22	153°51.3	-10°50.1	22	153°57.7	-11°53.2	22	154°02.4	-12°54.7
23	168°34.3	-8°40.6	23	168°43.6	-9°46.4	23	168°51.4	-10°50.9	23	168°57.8	-11°54.1	23	169°02.5	-12°55.6
	SD.=16.0	d=-0.9		SD.=16.0	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.9		SD.=16.1	d=-0.8

28	GHA	Dec	31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec
0	184°02.5	-12°56.4	0	184°05.5	-13°56.1	0	184°06.8	-14°53.7	0	184°06.2	-15°49.2	0	184°03.9	-16°42.3
1	199°02.6	-12°57.2	1	199°05.5	-13°56.9	1	199°06.8	-14°54.5	1	199°06.2	-15°50.0	1	199°03.8	-16°43.0
2	214°02.6	-12°58.1	2	214°05.6	-13°57.7	2	214°06.8	-14°55.3	2	214°06.2	-15°50.7	2	214°03.8	-16°43.8
3	229°02.7	-12°58.9	3	229°05.6	-13°58.5	3	229°06.8	-14°56.1	3	229°06.2	-15°51.5	3	229°03.7	-16°44.5
4	244°02.7	-12°59.8	4	244°05.6	-13°59.3	4	244°06.8	-14°56.9	4	244°06.1	-15°52.2	4	244°03.7	-16°45.2
5	259°02.8	-13°00.6	5	259°05.6	-14°00.1	5	259°06.8	-14°57.7	5	259°06.1	-15°53.0	5	259°03.6	-16°45.9
6	274°02.8	-13°01.4	6	274°05.7	-14°01.0	6	274°06.8	-14°58.4	6	274°06.1	-15°53.7	6	274°03.6	-16°46.6
7	289°02.9	-13°02.3	7	289°05.7	-14°01.8	7	289°06.8	-14°59.2	7	289°06.1	-15°54.5	7	289°03.5	-16°47.3
8	304°02.9	-13°03.1	8	304°05.7	-14°02.6	8	304°06.8	-15°00.0	8	304°06.1	-15°55.2	8	304°03.5	-16°48.1
9	319°03.0	-13°04.0	9	319°05.8	-14°03.4	9	319°06.8	-15°00.8	9	319°06.0	-15°56.0	9	319°03.4	-16°48.8
10	334°03.0	-13°04.8	10	334°05.8	-14°04.2	10	334°06.8	-15°01.6	10	334°06.0	-15°56.7	10	334°03.4	-16°49.5
11	349°03.1	-13°05.6	11	349°05.8	-14°05.0	11	349°06.8	-15°02.4	11	349°06.0	-15°57.5	11	349°03.3	-16°50.2
12	4°03.1	-13°06.5	12	4°05.8	-14°05.8	12	4°06.8	-15°03.1	12	4°06.0	-15°58.2	12	4°03.3	-16°50.9
13	19°03.2	-13°07.3	13	19°05.9	-14°06.6	13	19°06.8	-15°03.9	13	19°05.9	-15°59.0	13	19°03.2	-16°51.6
14	34°03.2	-13°08.2	14	34°05.9	-14°07.4	14	34°06.8	-15°04.7	14	34°05.9	-15°59.7	14	34°03.2	-16°52.4
15	49°03.3	-13°09.0	15	49°05.9	-14°08.3	15	49°06.8	-15°05.5	15	49°05.9	-16°00.5	15	49°03.1	-16°53.1
16	64°03.3	-13°09.8	16	64°05.9	-14°09.1	16	64°06.8	-15°06.3	16	64°05.9	-16°01.2	16	64°03.1	-16°53.8
17	79°03.4	-13°10.7	17	79°06.0	-14°09.9	17	79°06.8	-15°07.0	17	79°05.8	-16°02.0	17	79°03.0	-16°54.5
18	94°03.4	-13°11.5	18	94°06.0	-14°10.7	18	94°06.8	-15°07.8	18	94°05.8	-16°02.7	18	94°03.0	-16°55.2
19	109°03.5	-13°12.3	19	109°06.0	-14°11.5	19	109°06.8	-15°08.6	19	109°05.8	-16°03.5	19	109°02.9	-16°55.9
20	124°03.5	-13°13.2	20	124°06.0	-14°12.3	20	124°06.8	-15°09.4	20	124°05.8	-16°04.2	20	124°02.9	-16°56.6
21	139°03.6	-13°14.0	21	139°06.1	-14°13.1	21	139°06.8	-15°10.2	21	139°05.7	-16°05.0	21	139°02.8	-16°57.3
22	154°03.6	-13°14.8	22	154°06.1	-14°13.9	22	154°06.8	-15°10.9	22	154°05.7	-16°05.7	22	154°02.8	-16°58.0
23	169°03.7	-13°15.7	23	169°06.1	-14°14.7	23	169°06.8	-15°11.7	23	169°05.7	-16°06.4	23	169°02.7	-16°58.8
	SD.=16.1	d=-0.8		SD.=16.1	d=-0.7									

29	GHA	Dec	01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec
0	184°03.7	-13°16.5	0	184°06.1	-14°15.5	0	184°06.8	-15°12.5	0	184°05.6	-16°07.2	0	184°02.7	-16°59.5
1	199°03.7	-13°17.3	1	199°06.1	-14°16.3	1	199°06.8	-15°13.3	1	199°05.6	-16°07.9	1	199°02.6	-17°00.2
2	214°03.8	-13°18.2	2	214°06.2	-14°17.1	2	214°06.8	-15°14.0	2	214°05.6	-16°08.7	2	214°02.5	-17°00.9
3	229°03.8	-13°19.0	3	229°06.2	-14°17.9	3	229°06.8	-15°14.8	3	229°05.6	-16°09.4	3	229°02.5	-17°01.6
4	244°03.9	-13°19.8	4	244°06.2	-14°18.7	4	244°06.8	-15°15.6	4	244°05.5	-16°10.2	4	244°02.4	-17°02.3
5	259°03.9	-13°20.7	5	259°06.2	-14°19.5	5	259°06.8	-15°16.4	5	259°05.5	-16°10.9	5	259°02.4	-17°03.0
6	274°04.0	-13°21.5	6	274°06.2	-14°20.4	6	274°06.8	-15°17.1	6	274°05.5	-16°11.6	6	274°02.3	-17°03.7
7	289°04.0	-13°22.3	7	289°06.3	-14°21.2	7	289°06.8	-15°17.9	7	289°05.4	-16°12.4	7	289°02.3	-17°04.4
8	304°04.1	-13°23.2	8	304°06.3	-14°22.0	8	304°06.7	-15°18.7	8	304°05.4	-16°13.1	8	304°02.2	-17°05.1
9	319°04.1	-13°24.0	9	319°06.3	-14°22.8	9	319°06.7	-15°19.4	9	319°05.4	-16°13.9	9	319°02.2	-17°05.8
10	334°04.1	-13°24.8	10	334°06.3	-14°23.6	10	334°06.7	-15°20.2	10	334°05.3	-16°14.6	10	334°02.1	-17°06.5
11	349°04.2	-13°25.6	11	349°06.3	-14°24.4	11	349°06.7	-15°21.0	11	349°05.3	-16°15.3	11	349°02.0	-17°07.2
12	4°04.2	-13°26.5	12	4°06.4	-14°25.2	12	4°06.7	-15°21.8	12	4°05.3	-16°16.1	12	4°02.0	-17°07.9
13	19°04.3	-13°27.3	13	19°06.4	-14°26.0	13	19°06.7	-15°22.5	13	19°05.2	-16°16.8	13	19°01.9	-17°08.6
14	34°04.3	-13°28.1	14	34°06.4	-14°26.8	14	34°06.7	-15°23.3	14	34°05.2	-16°17.5	14	34°01.9	-17°09.3
15	49°04.3	-13°29.0	15	49°06.4	-14°27.6	15	49°06.7	-15°24.1	15	49°05.2	-16°18.3	15	49°01.8	-17°10.0
16	64°04.4	-13°29.8	16	64°06.4	-14°28.4	16	64°06.7	-15°24.8	16	64°05.1	-16°19.0	16	64°01.7	-17°10.7
17	79°04.4	-13°30.6	17	79°06.4	-14°29.2	17	79°06.7	-15°25.6	17	79°05.1	-16°19.8	17	79°01.7	-17°11.4
18	94°04.5	-13°31.4	18	94°06.4	-14°30.0	18	94°06.7	-15°26.4	18	94°05.1	-16°20.5	18	94°01.6	-17°12.1
19	109°04.5	-13°32.3	19	109°06.5	-14°30.8	19	109°06.7	-15°27.1	19	109°05.0	-16°21.2	19	109°01.6	-17°12.8
20	124°04.5	-13°33.1	20	124°06.5	-14°31.6	20	124°06.6	-15°27.9	20	124°05.0	-16°22.0	20	124°01.5	-17°13.5
21	139°04.6	-13°33.9	21	139°06.5	-14°32.4	21	139°06.6	-15°28.7	21	139°05.0	-16°22.7	21	139°01.4	-17°14.2
22	154°04.6	-13°34.7	22	154°06.5	-14°33.2	22	154°06.6	-15°29.4	22	154°04.9	-16°23.4	22	154°01.4	-17°14.9
23	169°04.7	-13°35.6	23	169°06.5	-14°34.0	23	169°06.6	-15°30.2	23	169°04.9	-16°24.2	23	169°01.3	-17°15.6
	SD.=16.1	d=-0.8		SD.=16.1	d=-0.8		SD.=16.1	d=-0.8		SD.=16.1	d=-0.7		SD.=16.1	d=-0.7

30	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec
0	184°04.7	-13°36.4	0	184°06.5	-14°34.7	0	184°06.6	-15°31.0	0	184°04.9	-16°24.9	0	184°01.2	-17°16.3
1	199°04.7	-13°37.2	1	199°06.5	-14°35.5	1	199°06.6	-15°31.7	1	199°04.8	-16°25.6	1	199°01.2	-17°17.0
2	214°04.8	-13°38.0	2	214°06.6	-14°36.3	2	214°06.6	-15°32.5	2	214°04.8	-16°26.4	2	214°01.1	-17°17.7
3	229°04.8	-13°38.9	3	229°06.6	-14°37.1	3	229°06.6	-15°33.3	3	229°04.7	-16°27.1	3	229°01.1	-17°18.4
4	244°04.8	-13°39.7	4	244°06.6	-14°37.9	4	244°06.6	-15°34.0	4	244°04.7	-16°27.8	4	244°01.0	-17°19.1
5	259°04.9	-13°40.5	5	259°06.6	-14°38.7	5	259°06.5	-15°34.8	5	259°04.7	-16°28.5	5	259°00.9	-17°19.8
6	274°04.9	-13°41.3	6	274°06.6	-14°39.5	6	274°06.5	-15°35.6	6	274°04.6	-16°29.3	6	274°00.9	-17°20.5
7	289°05.0	-13°42.2	7	289°06.6	-14°40.3	7	289°06.5	-15°36.3	7	289°04.6	-16°30.0	7	289°00.8	-17°21.2
8	304°05.0	-13°43.0	8	304°06.6	-14°41.1	8	304°06.5	-15°37.1	8	304°04.5	-16°30.7	8	304°00.7	-17°21.9
9	319°05.0	-13°43.8	9	319°06.6	-14°41.9	9	319°06.5	-15°37.8	9	319°04.5	-16°31.5	9	319°00.7	-17°22.6
10	334°05.1	-13°44.6	10	334°06.7	-14°42.7	10	334°06.5	-15°38.6	10	334°04.5	-16°32.2	10	334°00.6	-17°23.2
11	349°05.1	-13°45.4	11	349°06.7	-14°43.5	11	349°06.5	-15°39.4	11	349°04.4	-16°32.9	11	349°00.5	-17°23.9
12	4°05.1	-13°46.3	12	4°06.7	-14°44.3	12	4°06.4	-15°40.1	12	4°04.4	-16°33.6	12	4°00.5	-17°24.6
13	19°05.2	-13°47.1	13	19°06.7	-14°45.1	13	19°06.4	-15°40.9	13	19°04.3	-16°34.4	13	19°00.4	-17°25.3
14	34°05.2	-13°47.9	14	34°06.7	-14°45.9	14	34°06.4	-15°41.6	14	34°04.3	-16°35.1	14	34°00.3	-17°26.0
15	49°05.2	-13°48.7	15	49°06.7	-14°46.6	15	49°06.4	-15°42.4	15	49°04.3	-16°35.8	15	49°00.3	-17°26.7
16	64°05.3	-13°49.5	16	64°06.7	-14°47.4	16	64°06.4	-15°43.2	16	64°04.2	-16°36.5	16	64°00.2	-17°27.4
17	79°05.3	-13°50.4	17	79°06.7	-14°48.2	17	79°06.4	-15°43.9	17	79°04.2	-16°37.3	17	79°00.1	-17°28.1
18	94°05.3	-13°51.2	18	94°06.7	-14°49.0	18	94°06.3	-15°44.7	18	94°04.1	-16°38.0	18	94°00.0	-17°28.8
19	109°05.4	-13°52.0	19	109°06.7	-14°49.8	19	109°06.3	-15°45.4	19	109°04.1	-16°38.7	19	108°60.0	-17°29.4
20	124°05.4	-13°52.8	20	124°06.7	-14°50.6	20	124°06.3	-15°46.2	20	124°04.0	-16°39.4	20	123°59.9	-17°30.1
21	139°05.4	-13°53.6	21	139°06.7	-14°51.4	21	139°06.3	-15°46.9	21	139°04.0	-16°40.2	21	138°59.8	-17°30.8
22	154°05.4	-13°54.4	22	154°06.7	-14°52.2	22	154°06.3	-15°47.7	22	154°04.0	-16°40.9	22	153°59.8	-17°31.5
23	169°05.5	-13°55.3	23	169°06.8	-14°53.0	23	169°06.2	-15°48.5	23	169°03.9	-16°41.6	23	168°59.7	-17°32.2
	SD.=16.1													

12	GHA	Dec	15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec
0	183°59.6	-17°32.9	0	183°53.5	-18°20.7	0	183°45.4	-19°05.6	0	183°35.4	-19°47.5	0	183°23.6	-20°26.2
1	198°59.5	-17°33.6	1	198°53.4	-18°21.3	1	198°45.3	-19°06.2	1	198°35.3	-19°48.1	1	198°23.4	-20°26.7
2	213°59.5	-17°34.2	2	213°53.3	-18°22.0	2	213°45.1	-19°06.8	2	213°35.1	-19°48.6	2	213°23.2	-20°27.2
3	228°59.4	-17°34.9	3	228°53.2	-18°22.6	3	228°45.0	-19°07.4	3	228°35.0	-19°49.2	3	228°23.0	-20°27.7
4	243°59.3	-17°35.6	4	243°53.1	-18°23.3	4	243°44.9	-19°08.0	4	243°34.8	-19°49.8	4	243°22.9	-20°28.2
5	258°59.3	-17°36.3	5	258°53.0	-18°23.9	5	258°44.8	-19°08.6	5	258°34.7	-19°50.3	5	258°22.7	-20°28.7
6	273°59.2	-17°37.0	6	273°52.9	-18°24.6	6	273°44.6	-19°09.2	6	273°34.5	-19°50.9	6	273°22.5	-20°29.2
7	288°59.1	-17°37.6	7	288°52.8	-18°25.2	7	288°44.5	-19°09.8	7	288°34.3	-19°51.4	7	288°22.3	-20°29.8
8	303°59.0	-17°38.3	8	303°52.7	-18°25.8	8	303°44.4	-19°10.4	8	303°34.2	-19°52.0	8	303°22.1	-20°30.3
9	318°59.0	-17°39.0	9	318°52.6	-18°26.5	9	318°44.3	-19°11.0	9	318°34.0	-19°52.5	9	318°22.0	-20°30.8
10	333°58.9	-17°39.7	10	333°52.5	-18°27.1	10	333°44.1	-19°11.6	10	333°33.9	-19°53.1	10	333°21.8	-20°31.3
11	348°58.8	-17°40.4	11	348°52.4	-18°27.8	11	348°44.0	-19°12.2	11	348°33.7	-19°53.6	11	348°21.6	-20°31.8
12	3°58.7	-17°41.0	12	3°52.3	-18°28.4	12	3°43.9	-19°12.8	12	3°33.6	-19°54.2	12	3°21.4	-20°32.3
13	18°58.7	-17°41.7	13	18°52.2	-18°29.0	13	18°43.7	-19°13.4	13	18°33.4	-19°54.7	13	18°21.2	-20°32.8
14	33°58.6	-17°42.4	14	33°52.1	-18°29.7	14	33°43.6	-19°14.0	14	33°33.3	-19°55.3	14	33°21.1	-20°33.3
15	48°58.5	-17°43.1	15	48°51.9	-18°30.3	15	48°43.5	-19°14.6	15	48°33.1	-19°55.8	15	48°20.9	-20°33.8
16	63°58.4	-17°43.7	16	63°51.8	-18°30.9	16	63°43.3	-19°15.2	16	63°32.9	-19°56.4	16	63°20.7	-20°34.3
17	78°58.3	-17°44.4	17	78°51.7	-18°31.6	17	78°43.2	-19°15.8	17	78°32.8	-19°56.9	17	78°20.5	-20°34.8
18	93°58.3	-17°45.1	18	93°51.6	-18°32.2	18	93°43.1	-19°16.4	18	93°32.6	-19°57.5	18	93°20.3	-20°35.3
19	108°58.2	-17°45.8	19	108°51.5	-18°32.8	19	108°42.9	-19°17.0	19	108°32.5	-19°58.0	19	108°20.1	-20°35.8
20	123°58.1	-17°46.4	20	123°51.4	-18°33.5	20	123°42.8	-19°17.6	20	123°32.3	-19°58.6	20	123°20.0	-20°36.3
21	138°58.0	-17°47.1	21	138°51.3	-18°34.1	21	138°42.7	-19°18.2	21	138°32.1	-19°59.1	21	138°19.8	-20°36.8
22	153°57.9	-17°47.8	22	153°51.2	-18°34.7	22	153°42.5	-19°18.8	22	153°32.0	-19°59.7	22	153°19.6	-20°37.3
23	168°57.9	-17°48.5	23	168°51.1	-18°35.4	23	168°42.4	-19°19.4	23	168°31.8	-20°00.2	23	168°19.4	-20°37.8
	SD.=16.2	d=-0.7		SD.=16.2	d=-0.6		SD.=16.2	d=-0.6		SD.=16.2	d=-0.6		SD.=16.2	d=-0.5
13	GHA	Dec	16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec
0	183°57.8	-17°49.1	0	183°51.0	-18°36.0	0	183°42.3	-19°19.9	0	183°31.7	-20°00.8	0	183°19.2	-20°38.3
1	198°57.7	-17°49.8	1	198°50.9	-18°36.6	1	198°42.1	-19°20.5	1	198°31.5	-20°01.3	1	198°19.0	-20°38.8
2	213°57.6	-17°50.5	2	213°50.8	-18°37.3	2	213°42.0	-19°21.1	2	213°31.3	-20°01.9	2	213°18.8	-20°39.3
3	228°57.5	-17°51.1	3	228°50.7	-18°37.9	3	228°41.9	-19°21.7	3	228°31.2	-20°02.4	3	228°18.7	-20°39.8
4	243°57.5	-17°51.8	4	243°50.6	-18°38.5	4	243°41.7	-19°22.3	4	243°31.0	-20°02.9	4	243°18.5	-20°40.3
5	258°57.4	-17°52.5	5	258°50.4	-18°39.2	5	258°41.6	-19°22.9	5	258°30.9	-20°03.5	5	258°18.3	-20°40.8
6	273°57.3	-17°53.1	6	273°50.3	-18°39.8	6	273°41.5	-19°23.5	6	273°30.7	-20°04.0	6	273°18.1	-20°41.3
7	288°57.2	-17°53.8	7	288°50.2	-18°40.4	7	288°41.3	-19°24.1	7	288°30.5	-20°04.6	7	288°17.9	-20°41.8
8	303°57.1	-17°54.5	8	303°50.1	-18°41.0	8	303°41.2	-19°24.6	8	303°30.4	-20°05.1	8	303°17.7	-20°42.3
9	318°57.0	-17°55.1	9	318°50.0	-18°41.7	9	318°41.1	-19°25.2	9	318°30.2	-20°05.6	9	318°17.5	-20°42.8
10	333°57.0	-17°55.8	10	333°49.9	-18°42.3	10	333°40.9	-19°25.8	10	333°30.0	-20°06.2	10	333°17.3	-20°43.3
11	348°56.9	-17°56.5	11	348°49.8	-18°42.9	11	348°40.8	-19°26.4	11	348°29.9	-20°06.7	11	348°17.2	-20°43.8
12	3°56.8	-17°57.1	12	3°49.7	-18°43.5	12	3°40.6	-19°27.0	12	3°29.7	-20°07.3	12	3°17.0	-20°44.2
13	18°56.7	-17°57.8	13	18°49.6	-18°44.2	13	18°40.5	-19°27.6	13	18°29.6	-20°07.8	13	18°16.8	-20°44.7
14	33°56.6	-17°58.5	14	33°49.4	-18°44.8	14	33°40.4	-19°28.1	14	33°29.4	-20°08.3	14	33°16.6	-20°45.2
15	48°56.5	-17°59.1	15	48°49.3	-18°45.4	15	48°40.2	-19°28.7	15	48°29.2	-20°08.9	15	48°16.4	-20°45.7
16	63°56.4	-17°59.8	16	63°49.2	-18°46.0	16	63°40.1	-19°29.3	16	63°29.1	-20°09.4	16	63°16.2	-20°46.2
17	78°56.4	-18°00.4	17	78°49.1	-18°46.7	17	78°39.9	-19°29.9	17	78°28.9	-20°09.9	17	78°16.0	-20°46.7
18	93°56.3	-18°01.1	18	93°49.0	-18°47.3	18	93°39.8	-19°30.5	18	93°28.7	-20°10.5	18	93°15.8	-20°47.2
19	108°56.2	-18°01.8	19	108°48.9	-18°47.9	19	108°39.7	-19°31.0	19	108°28.6	-20°11.0	19	108°15.6	-20°47.7
20	123°56.1	-18°02.4	20	123°48.8	-18°48.5	20	123°39.5	-19°31.6	20	123°28.4	-20°11.5	20	123°15.4	-20°48.1
21	138°56.0	-18°03.1	21	138°48.6	-18°49.1	21	138°39.4	-19°32.2	21	138°28.2	-20°12.1	21	138°15.2	-20°48.6
22	153°55.9	-18°03.7	22	153°48.5	-18°49.8	22	153°39.2	-19°32.8	22	153°28.1	-20°12.6	22	153°15.1	-20°49.1
23	168°55.8	-18°04.4	23	168°48.4	-18°50.4	23	168°39.1	-19°33.3	23	168°27.9	-20°13.1	23	168°14.9	-20°49.6
	SD.=16.2	d=-0.7		SD.=16.2	d=-0.6		SD.=16.2	d=-0.6		SD.=16.2	d=-0.5		SD.=16.2	d=-0.5
14	GHA	Dec	17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec
0	183°55.7	-18°05.1	0	183°48.3	-18°51.0	0	183°39.0	-19°33.9	0	183°27.7	-20°13.7	0	183°14.7	-20°50.1
1	198°55.6	-18°05.7	1	198°48.2	-18°51.6	1	198°38.8	-19°34.5	1	198°27.5	-20°14.2	1	198°14.5	-20°50.6
2	213°55.6	-18°06.4	2	213°48.1	-18°52.2	2	213°38.7	-19°35.1	2	213°27.4	-20°14.7	2	213°14.3	-20°51.0
3	228°55.5	-18°07.0	3	228°48.0	-18°52.8	3	228°38.5	-19°35.6	3	228°27.2	-20°15.2	3	228°14.1	-20°51.5
4	243°55.4	-18°07.7	4	243°47.8	-18°53.5	4	243°38.4	-19°36.2	4	243°27.0	-20°15.8	4	243°13.9	-20°52.0
5	258°55.3	-18°08.3	5	258°47.7	-18°54.1	5	258°38.2	-19°36.8	5	258°26.9	-20°16.3	5	258°13.7	-20°52.5
6	273°55.2	-18°09.0	6	273°47.6	-18°54.7	6	273°38.1	-19°37.3	6	273°26.7	-20°16.8	6	273°13.5	-20°53.0
7	288°55.1	-18°09.7	7	288°47.5	-18°55.3	7	288°37.9	-19°37.9	7	288°26.5	-20°17.3	7	288°13.3	-20°53.4
8	303°55.0	-18°10.3	8	303°47.4	-18°55.9	8	303°37.8	-19°38.5	8	303°26.4	-20°17.9	8	303°13.1	-20°53.9
9	318°54.9	-18°11.0	9	318°47.2	-18°56.5	9	318°37.6	-19°39.1	9	318°26.2	-20°18.4	9	318°12.9	-20°54.4
10	333°54.8	-18°11.6	10	333°47.1	-18°57.1	10	333°37.5	-19°39.6	10	333°26.0	-20°18.9	10	333°12.7	-20°54.9
11	348°54.7	-18°12.3	11	348°47.0	-18°57.7	11	348°37.4	-19°40.2	11	348°25.8	-20°19.4	11	348°12.5	-20°55.3
12	3°54.6	-18°12.9	12	3°46.9	-18°58.4	12	3°37.2	-19°40.8	12	3°25.7	-20°20.0	12	3°12.3	-20°55.8
13	18°54.5	-18°13.6	13	18°46.8	-18°59.0	13	18°37.1	-19°41.3	13	18°25.5	-20°20.5	13	18°12.1	-20°56.3
14	33°54.4	-18°14.2	14	33°46.6	-18°59.6	14	33°36.9	-19°41.9	14	33°25.3	-20°21.0	14	33°11.9	-20°56.8
15	48°54.3	-18°14.9	15	48°46.5	-19°00.2	15	48°36.8	-19°42.5	15	48°25.1	-20°21.5	15	48°11.7	-20°57.2
16	63°54.2	-18°15.5	16	63°46.4	-19°00.8	16	63°36.6	-19°43.0	16	63°25.0	-20°22.0	16	63°11.5	-20°57.7
17	78°54.2	-18°16.2	17	78°46.3	-19°01.4	17	78°36.5	-19°43.6	17	78°24.8	-20°22.6	17	78°11.3	-20°58.2
18	93°54.1	-18°16.8	18	93°46.1	-19°02.0	18	93°36.3	-19°44.1	18	93°24.6	-20°23.1	18	93°11.1	-20°58.6
19	108°54.0	-18°17.5	19	108°46.0	-19°02.6	19	108°36.2	-19°44.7	19	108°24.4	-20°23.6	19	108°10.9	-20°59.1
20	123°53.9	-18°18.1	20	123°45.9	-19°03.2	20	123°36.0	-19°45.3	20	123°24.3	-20°24.1	20	123°10.7	-20°59.6
21	138°53.8	-18°18.8	21	138°45.8	-19°03.8	21	138°35.9	-19°45.8	21	138°24.1	-20°24.6	21	138°10.5	-21°00.0
22	153°53.7	-18°19.4	22	153°45.6	-19									

27	GHA	Dec	30	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec
0	183°09.9	-21°01.4	0	182°54.7	-21°33.2	0	182°37.9	-22°01.2	0	182°19.8	-22°25.4	0	182°00.5	-22°45.7
1	198°09.7	-21°01.9	1	197°54.5	-21°33.6	1	197°37.7	-22°01.6	1	197°19.5	-22°25.7	1	197°00.3	-22°45.9
2	213°09.5	-21°02.4	2	212°54.2	-21°34.0	2	212°37.4	-22°01.9	2	212°19.3	-22°26.0	2	211°60.0	-22°46.2
3	228°09.3	-21°02.8	3	227°54.0	-21°34.4	3	227°37.2	-22°02.3	3	227°19.0	-22°26.3	3	226°59.7	-22°46.4
4	243°09.1	-21°03.3	4	242°53.8	-21°34.8	4	242°36.9	-22°02.6	4	242°18.8	-22°26.6	4	241°59.4	-22°46.7
5	258°08.9	-21°03.8	5	257°53.6	-21°35.2	5	257°36.7	-22°03.0	5	257°18.5	-22°26.9	5	256°59.1	-22°46.9
6	273°08.7	-21°04.2	6	272°53.3	-21°35.6	6	272°36.5	-22°03.4	6	272°18.2	-22°27.2	6	271°58.9	-22°47.2
7	288°08.5	-21°04.7	7	287°53.1	-21°36.1	7	287°36.2	-22°03.7	7	287°18.0	-22°27.6	7	286°58.6	-22°47.4
8	303°08.3	-21°05.1	8	302°52.9	-21°36.5	8	302°36.0	-22°04.1	8	302°17.7	-22°27.9	8	301°58.3	-22°47.7
9	318°08.1	-21°05.6	9	317°52.7	-21°36.9	9	317°35.7	-22°04.4	9	317°17.5	-22°28.2	9	316°58.0	-22°47.9
10	333°07.9	-21°06.1	10	332°52.4	-21°37.3	10	332°35.5	-22°04.8	10	332°17.2	-22°28.5	10	331°57.8	-22°48.2
11	348°07.7	-21°06.5	11	347°52.2	-21°37.7	11	347°35.2	-22°05.1	11	347°16.9	-22°28.8	11	346°57.5	-22°48.4
12	3°07.5	-21°07.0	12	2°52.0	-21°38.1	12	2°35.0	-22°05.5	12	2°16.7	-22°29.1	12	1°57.2	-22°48.7
13	18°07.3	-21°07.4	13	17°51.8	-21°38.5	13	17°34.7	-22°05.9	13	17°16.4	-22°29.4	13	16°56.9	-22°48.9
14	33°07.1	-21°07.9	14	32°51.5	-21°38.9	14	32°34.5	-22°06.2	14	32°16.1	-22°29.7	14	31°56.7	-22°49.2
15	48°06.9	-21°08.3	15	47°51.3	-21°39.3	15	47°34.2	-22°06.6	15	47°15.9	-22°30.0	15	46°56.4	-22°49.4
16	63°06.7	-21°08.8	16	62°51.1	-21°39.7	16	62°34.0	-22°06.9	16	62°15.6	-22°30.3	16	61°56.1	-22°49.6
17	78°06.5	-21°09.3	17	77°50.8	-21°40.1	17	77°33.8	-22°07.3	17	77°15.4	-22°30.6	17	76°55.8	-22°49.9
18	93°06.3	-21°09.7	18	92°50.6	-21°40.5	18	92°33.5	-22°07.6	18	92°15.1	-22°30.8	18	91°55.5	-22°50.1
19	108°06.1	-21°10.2	19	107°50.4	-21°40.9	19	107°33.3	-22°08.0	19	107°14.8	-22°31.1	19	106°55.3	-22°50.4
20	123°05.9	-21°10.6	20	122°50.2	-21°41.3	20	122°33.0	-22°08.3	20	122°14.6	-22°31.4	20	121°55.0	-22°50.6
21	138°05.7	-21°11.1	21	137°49.9	-21°41.7	21	137°32.8	-22°08.7	21	137°14.3	-22°31.7	21	136°54.7	-22°50.8
22	153°05.4	-21°11.5	22	152°49.7	-21°42.1	22	152°32.5	-22°09.0	22	152°14.0	-22°32.0	22	151°54.4	-22°51.1
23	168°05.2	-21°12.0	23	167°49.5	-21°42.5	23	167°32.3	-22°09.4	23	167°13.8	-22°32.3	23	166°54.1	-22°51.3
	SD.=16.2	d=-0.5		SD.=16.2	d=-0.4		SD.=16.2	d=-0.4		SD.=16.2	d=-0.3		SD.=16.2	d=-0.3

28	GHA	Dec	01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec
0	183°05.0	-21°12.4	0	182°49.2	-21°42.9	0	182°32.0	-22°09.7	0	182°13.5	-22°32.6	0	181°53.9	-22°51.5
1	198°04.8	-21°12.9	1	197°49.0	-21°43.3	1	197°31.8	-22°10.0	1	197°13.2	-22°32.9	1	196°53.6	-22°51.8
2	213°04.6	-21°13.3	2	212°48.8	-21°43.7	2	212°31.5	-22°10.4	2	212°13.0	-22°33.2	2	211°53.3	-22°52.0
3	228°04.4	-21°13.8	3	227°48.6	-21°44.1	3	227°31.3	-22°10.7	3	227°12.7	-22°33.5	3	226°53.0	-22°52.2
4	243°04.2	-21°14.2	4	242°48.3	-21°44.5	4	242°31.0	-22°11.1	4	242°12.4	-22°33.8	4	241°52.7	-22°52.5
5	258°04.0	-21°14.7	5	257°48.1	-21°44.9	5	257°30.8	-22°11.4	5	257°12.2	-22°34.1	5	256°52.5	-22°52.7
6	273°03.8	-21°15.1	6	272°47.9	-21°45.3	6	272°30.5	-22°11.8	6	272°11.9	-22°34.4	6	271°52.2	-22°52.9
7	288°03.6	-21°15.5	7	287°47.6	-21°45.7	7	287°30.3	-22°12.1	7	287°11.6	-22°34.6	7	286°51.9	-22°53.2
8	303°03.4	-21°16.0	8	302°47.4	-21°46.1	8	302°30.0	-22°12.4	8	302°11.4	-22°34.9	8	301°51.6	-22°53.4
9	318°03.1	-21°16.4	9	317°47.2	-21°46.5	9	317°29.8	-22°12.8	9	317°11.1	-22°35.2	9	316°51.3	-22°53.6
10	333°02.9	-21°16.9	10	332°46.9	-21°46.9	10	332°29.5	-22°13.1	10	332°10.8	-22°35.5	10	331°51.1	-22°53.9
11	348°02.7	-21°17.3	11	347°46.7	-21°47.3	11	347°29.3	-22°13.5	11	347°10.6	-22°35.8	11	346°50.8	-22°54.1
12	3°02.5	-21°17.8	12	2°46.5	-21°47.7	12	2°29.0	-22°13.8	12	2°10.3	-22°36.0	12	1°50.5	-22°54.3
13	18°02.3	-21°18.2	13	17°46.2	-21°48.0	13	17°28.8	-22°14.1	13	17°10.0	-22°36.3	13	16°50.2	-22°54.5
14	33°02.1	-21°18.6	14	32°46.0	-21°48.4	14	32°28.5	-22°14.5	14	32°09.8	-22°36.6	14	31°49.9	-22°54.8
15	48°01.9	-21°19.1	15	47°45.8	-21°48.8	15	47°28.3	-22°14.8	15	47°09.5	-22°36.9	15	46°49.7	-22°55.0
16	63°01.7	-21°19.5	16	62°45.5	-21°49.2	16	62°28.0	-22°15.1	16	62°09.2	-22°37.2	16	61°49.4	-22°55.2
17	78°01.4	-21°20.0	17	77°45.3	-21°49.6	17	77°27.8	-22°15.5	17	77°09.0	-22°37.4	17	76°49.1	-22°55.4
18	93°01.2	-21°20.4	18	92°45.1	-21°50.0	18	92°27.5	-22°15.8	18	92°08.7	-22°37.7	18	91°48.8	-22°55.6
19	108°01.0	-21°20.8	19	107°44.8	-21°50.4	19	107°27.3	-22°16.1	19	107°08.4	-22°38.0	19	106°48.5	-22°55.9
20	123°00.8	-21°21.3	20	122°44.6	-21°50.7	20	122°27.0	-22°16.5	20	122°08.2	-22°38.3	20	121°48.2	-22°56.1
21	138°00.6	-21°21.7	21	137°44.4	-21°51.1	21	137°26.7	-22°16.8	21	137°07.9	-22°38.5	21	136°48.0	-22°56.3
22	153°00.4	-21°22.1	22	152°44.1	-21°51.5	22	152°26.5	-22°17.1	22	152°07.6	-22°38.8	22	151°47.7	-22°56.5
23	168°00.2	-21°22.6	23	167°43.9	-21°51.9	23	167°26.2	-22°17.4	23	167°07.3	-22°39.1	23	166°47.4	-22°56.7
	SD.=16.2	d=-0.4		SD.=16.2	d=-0.4		SD.=16.2	d=-0.3		SD.=16.2	d=-0.3		SD.=16.2	d=-0.2

29	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec	11	GHA	Dec
0	182°59.9	-21°23.0	0	182°43.7	-21°52.3	0	182°26.0	-22°17.8	0	182°07.1	-22°39.4	0	181°47.1	-22°57.0
1	197°59.7	-21°23.4	1	197°43.4	-21°52.7	1	197°25.7	-22°18.1	1	197°06.8	-22°39.6	1	196°46.8	-22°57.2
2	212°59.5	-21°23.9	2	212°43.2	-21°53.0	2	212°25.5	-22°18.4	2	212°06.5	-22°39.9	2	211°46.5	-22°57.4
3	227°59.3	-21°24.3	3	227°42.9	-21°53.4	3	227°25.2	-22°18.7	3	227°06.3	-22°40.2	3	226°46.2	-22°57.6
4	242°59.1	-21°24.7	4	242°42.7	-21°53.8	4	242°25.0	-22°19.1	4	242°06.0	-22°40.4	4	241°46.0	-22°57.8
5	257°58.9	-21°25.1	5	257°42.5	-21°54.2	5	257°24.7	-22°19.4	5	257°05.7	-22°40.7	5	256°45.7	-22°58.0
6	272°58.6	-21°25.6	6	272°42.2	-21°54.5	6	272°24.5	-22°19.7	6	272°05.4	-22°41.0	6	271°45.4	-22°58.2
7	287°58.4	-21°26.0	7	287°42.0	-21°54.9	7	287°24.2	-22°20.0	7	287°05.2	-22°41.3	7	286°45.1	-22°58.5
8	302°58.2	-21°26.4	8	302°41.8	-21°55.3	8	302°23.9	-22°20.4	8	302°04.9	-22°41.5	8	301°44.8	-22°58.7
9	317°58.0	-21°26.9	9	317°41.5	-21°55.7	9	317°23.7	-22°20.7	9	317°04.6	-22°41.8	9	316°44.5	-22°58.9
10	332°57.8	-21°27.3	10	332°41.3	-21°56.0	10	332°23.4	-22°21.0	10	332°04.4	-22°42.0	10	331°44.3	-22°59.1
11	347°57.5	-21°27.7	11	347°41.0	-21°56.4	11	347°23.2	-22°21.3	11	347°04.1	-22°42.3	11	346°44.0	-22°59.3
12	2°57.3	-21°28.1	12	2°40.8	-21°56.8	12	2°22.9	-22°21.6	12	2°03.8	-22°42.6	12	1°43.7	-22°59.5
13	17°57.1	-21°28.6	13	17°40.6	-21°57.2	13	17°22.7	-22°22.0	13	17°03.5	-22°42.8	13	16°43.4	-22°59.7
14	32°56.9	-21°29.0	14	32°40.3	-21°57.5	14	32°22.4	-22°22.3	14	32°03.3	-22°43.1	14	31°43.1	-22°59.9
15	47°56.7	-21°29.4	15	47°40.1	-21°57.9	15	47°22.1	-22°22.6	15	47°03.0	-22°43.4	15	46°42.8	-23°00.1
16	62°56.4	-21°29.8	16	62°39.8	-21°58.3	16	62°21.9	-22°22.9	16	62°02.7	-22°43.6	16	61°42.5	-23°00.3
17	77°56.2	-21°30.2	17	77°39.6	-21°58.6	17	77°21.6	-22°23.2	17	77°02.4	-22°43.9	17	76°42.2	-23°00.5
18	92°56.0	-21°30.7	18	92°39.4	-21°59.0	18	92°21.4	-22°23.5	18	92°02.2	-22°44.1	18	91°42.0	-23°00.7
19	107°55.8	-21°31.1	19	107°39.1	-21°59.4	19	107°21.1	-22°23.9	19	107°01.9	-22°44.4	19	106°41.7	-23°00.9
20	122°55.6	-21°31.5	20	122°38.9	-21°59.7	20	122°20.8	-22°24.2	20	122°01.6	-22°44.7	20	121°41.4	-23°01.1
21	137°55.3	-21°31.9	21	137°38.6	-22°00.1	21	137°20.6	-22°24.5	21	137°01.4	-22°44.9	21	136°41.1	-23°01.3
22	152°55.1	-21°32.3	22	152°38.4	-22°00.5	22	152°20.3	-22°24.8	22	152°01.1	-22°45.2	22	151°40.8	-23°01.5
23	167°54.9	-21°32.8	23	167°38.2	-22°00.8	23	167°20.1	-22°25.1	23	167°00.8	-22°45.4	23	166°40.5	-23°01.7
	SD.=16.2													

12	GHA	Dec	15	GHA	Dec	18	GHA	Dec	21	GHA	Dec	24	GHA	Dec
0	181°40.2	-23°01.9	0	181°19.1	-23°14.1	0	180°57.3	-23°22.1	0	180°35.1	-23°25.8	0	180°12.7	-23°25.4
1	196°39.9	-23°02.1	1	196°18.8	-23°14.2	1	195°57.0	-23°22.1	1	195°34.8	-23°25.9	1	195°12.4	-23°25.3
2	211°39.7	-23°02.3	2	211°18.5	-23°14.3	2	210°56.7	-23°22.2	2	210°34.5	-23°25.9	2	210°12.1	-23°25.3
3	226°39.4	-23°02.5	3	226°18.2	-23°14.5	3	225°56.4	-23°22.3	3	225°34.2	-23°25.9	3	225°11.7	-23°25.3
4	241°39.1	-23°02.7	4	241°17.9	-23°14.6	4	240°56.1	-23°22.4	4	240°33.9	-23°25.9	4	240°11.4	-23°25.2
5	256°38.8	-23°02.9	5	256°17.6	-23°14.8	5	255°55.8	-23°22.5	5	255°33.6	-23°25.9	5	255°11.1	-23°25.2
6	271°38.5	-23°03.1	6	271°17.3	-23°14.9	6	270°55.5	-23°22.5	6	270°33.3	-23°26.0	6	270°10.8	-23°25.2
7	286°38.2	-23°03.3	7	286°17.0	-23°15.0	7	285°55.2	-23°22.6	7	285°32.9	-23°26.0	7	285°10.5	-23°25.1
8	301°37.9	-23°03.5	8	301°16.7	-23°15.2	8	300°54.9	-23°22.7	8	300°32.6	-23°26.0	8	300°10.2	-23°25.1
9	316°37.6	-23°03.7	9	316°16.4	-23°15.3	9	315°54.6	-23°22.8	9	315°32.3	-23°26.0	9	315°09.9	-23°25.0
10	331°37.3	-23°03.9	10	331°16.1	-23°15.4	10	330°54.3	-23°22.8	10	330°32.0	-23°26.0	10	330°09.6	-23°25.0
11	346°37.1	-23°04.0	11	346°15.8	-23°15.6	11	345°54.0	-23°22.9	11	345°31.7	-23°26.0	11	345°09.2	-23°24.9
12	1°36.8	-23°04.2	12	1°15.5	-23°15.7	12	0°53.7	-23°23.0	12	0°31.4	-23°26.1	12	0°08.9	-23°24.9
13	16°36.5	-23°04.4	13	16°15.2	-23°15.8	13	15°53.4	-23°23.0	13	15°31.1	-23°26.1	13	15°08.6	-23°24.8
14	31°36.2	-23°04.6	14	31°14.9	-23°15.9	14	30°53.0	-23°23.1	14	30°30.8	-23°26.1	14	30°08.3	-23°24.8
15	46°35.9	-23°04.8	15	46°14.6	-23°16.1	15	45°52.7	-23°23.2	15	45°30.5	-23°26.1	15	45°08.0	-23°24.8
16	61°35.6	-23°05.0	16	61°14.3	-23°16.2	16	60°52.4	-23°23.3	16	60°30.1	-23°26.1	16	60°07.7	-23°24.7
17	76°35.3	-23°05.2	17	76°14.0	-23°16.3	17	75°52.1	-23°23.3	17	75°29.8	-23°26.1	17	75°07.4	-23°24.7
18	91°35.0	-23°05.3	18	91°13.7	-23°16.5	18	90°51.8	-23°23.4	18	90°29.5	-23°26.1	18	90°07.1	-23°24.6
19	106°34.7	-23°05.5	19	106°13.4	-23°16.6	19	105°51.5	-23°23.5	19	105°29.2	-23°26.1	19	105°06.8	-23°24.6
20	121°34.4	-23°05.7	20	121°13.1	-23°16.7	20	120°51.2	-23°23.5	20	120°28.9	-23°26.1	20	120°06.4	-23°24.5
21	136°34.2	-23°05.9	21	136°12.8	-23°16.8	21	135°50.9	-23°23.6	21	135°28.6	-23°26.1	21	135°06.1	-23°24.5
22	151°33.9	-23°06.1	22	151°12.5	-23°17.0	22	150°50.6	-23°23.7	22	150°28.3	-23°26.1	22	150°05.8	-23°24.4
23	166°33.6	-23°06.3	23	166°12.2	-23°17.1	23	165°50.3	-23°23.7	23	165°28.0	-23°26.1	23	165°05.5	-23°24.3
	SD.=16.2	d=-0.2		SD.=16.2	d=-0.1		SD.=16.3	d=-0.1		SD.=16.3	d=-0.0		SD.=16.3	d=0.0
13	GHA	Dec	16	GHA	Dec	19	GHA	Dec	22	GHA	Dec	25	GHA	Dec
0	181°33.3	-23°06.4	0	181°11.9	-23°17.2	0	180°50.0	-23°23.8	0	180°27.7	-23°26.2	0	180°05.2	-23°24.3
1	196°33.0	-23°06.6	1	196°11.6	-23°17.3	1	195°49.7	-23°23.8	1	195°27.3	-23°26.2	1	195°04.9	-23°24.2
2	211°32.7	-23°06.8	2	211°11.3	-23°17.4	2	210°49.4	-23°23.9	2	210°27.0	-23°26.2	2	210°04.6	-23°24.2
3	226°32.4	-23°07.0	3	226°11.0	-23°17.6	3	225°49.0	-23°24.0	3	225°26.7	-23°26.2	3	225°04.3	-23°24.1
4	241°32.1	-23°07.1	4	241°10.7	-23°17.7	4	240°48.7	-23°24.0	4	240°26.4	-23°26.2	4	240°03.9	-23°24.1
5	256°31.8	-23°07.3	5	256°10.4	-23°17.8	5	255°48.4	-23°24.1	5	255°26.1	-23°26.2	5	255°03.6	-23°24.0
6	271°31.5	-23°07.5	6	271°10.1	-23°17.9	6	270°48.1	-23°24.1	6	270°25.8	-23°26.2	6	270°03.3	-23°23.9
7	286°31.2	-23°07.7	7	286°09.8	-23°18.0	7	285°47.8	-23°24.2	7	285°25.5	-23°26.2	7	285°03.0	-23°23.9
8	301°30.9	-23°07.8	8	301°09.5	-23°18.1	8	300°47.5	-23°24.3	8	300°25.2	-23°26.2	8	300°02.7	-23°23.8
9	316°30.6	-23°08.0	9	316°09.2	-23°18.2	9	315°47.2	-23°24.3	9	315°24.8	-23°26.2	9	315°02.4	-23°23.8
10	331°30.4	-23°08.2	10	331°08.9	-23°18.4	10	330°46.9	-23°24.4	10	330°24.5	-23°26.1	10	330°02.1	-23°23.7
11	346°30.1	-23°08.3	11	346°08.6	-23°18.5	11	345°46.6	-23°24.4	11	345°24.2	-23°26.1	11	345°01.8	-23°23.6
12	1°29.8	-23°08.5	12	1°08.3	-23°18.6	12	0°46.3	-23°24.5	12	0°23.9	-23°26.1	12	0°01.5	-23°23.6
13	16°29.5	-23°08.7	13	16°08.0	-23°18.7	13	15°46.0	-23°24.5	13	15°23.6	-23°26.1	13	15°01.1	-23°23.5
14	31°29.2	-23°08.8	14	31°07.7	-23°18.8	14	30°45.7	-23°24.6	14	30°23.3	-23°26.1	14	30°00.8	-23°23.4
15	46°28.9	-23°09.0	15	46°07.4	-23°18.9	15	45°45.3	-23°24.6	15	45°23.0	-23°26.1	15	45°00.5	-23°23.4
16	61°28.6	-23°09.2	16	61°07.1	-23°19.0	16	60°45.0	-23°24.7	16	60°22.7	-23°26.1	16	60°00.2	-23°23.3
17	76°28.3	-23°09.3	17	76°06.8	-23°19.1	17	75°44.7	-23°24.7	17	75°22.4	-23°26.1	17	74°59.9	-23°23.2
18	91°28.0	-23°09.5	18	91°06.5	-23°19.2	18	90°44.4	-23°24.8	18	90°22.0	-23°26.1	18	89°59.6	-23°23.2
19	106°27.7	-23°09.7	19	106°06.2	-23°19.3	19	105°44.1	-23°24.8	19	105°21.7	-23°26.1	19	104°59.3	-23°23.1
20	121°27.4	-23°09.8	20	121°05.9	-23°19.4	20	120°43.8	-23°24.9	20	120°21.4	-23°26.1	20	119°59.0	-23°23.0
21	136°27.1	-23°10.0	21	136°05.6	-23°19.5	21	135°43.5	-23°24.9	21	135°21.1	-23°26.0	21	134°58.7	-23°22.9
22	151°26.8	-23°10.2	22	151°05.3	-23°19.7	22	150°43.2	-23°25.0	22	150°20.8	-23°26.0	22	149°58.3	-23°22.9
23	166°26.5	-23°10.3	23	166°05.0	-23°19.8	23	165°42.9	-23°25.0	23	165°20.5	-23°26.0	23	164°58.0	-23°22.8
	SD.=16.2	d=-0.2		SD.=16.3	d=-0.1		SD.=16.3	d=-0.1		SD.=16.3	d=-0.0		SD.=16.3	d=0.1
14	GHA	Dec	17	GHA	Dec	20	GHA	Dec	23	GHA	Dec	26	GHA	Dec
0	181°26.2	-23°10.5	0	181°04.7	-23°19.0	0	180°42.6	-23°25.0	0	180°20.2	-23°26.0	0	179°57.7	-23°22.7
1	196°25.9	-23°10.6	1	196°04.4	-23°20.0	1	195°42.3	-23°25.1	1	195°19.9	-23°26.0	1	194°57.4	-23°22.7
2	211°25.6	-23°10.8	2	211°04.0	-23°20.1	2	210°41.9	-23°25.1	2	210°19.5	-23°26.0	2	209°57.1	-23°22.6
3	226°25.3	-23°11.0	3	226°03.7	-23°20.2	3	225°41.6	-23°25.2	3	225°19.2	-23°26.0	3	224°56.8	-23°22.5
4	241°25.1	-23°11.1	4	241°03.4	-23°20.3	4	240°41.3	-23°25.2	4	240°18.9	-23°25.9	4	239°56.5	-23°22.4
5	256°24.8	-23°11.3	5	256°03.1	-23°20.4	5	255°41.0	-23°25.2	5	255°18.6	-23°25.9	5	254°56.2	-23°22.3
6	271°24.5	-23°11.4	6	271°02.8	-23°20.4	6	270°40.7	-23°25.3	6	270°18.3	-23°25.9	6	269°55.9	-23°22.3
7	286°24.2	-23°11.6	7	286°02.5	-23°20.5	7	285°40.4	-23°25.3	7	285°18.0	-23°25.9	7	284°55.5	-23°22.2
8	301°23.9	-23°11.7	8	301°02.2	-23°20.6	8	300°40.1	-23°25.4	8	300°17.7	-23°25.8	8	299°55.2	-23°22.1
9	316°23.6	-23°11.9	9	316°01.9	-23°20.7	9	315°39.8	-23°25.4	9	315°17.4	-23°25.8	9	314°54.9	-23°22.0
10	331°23.3	-23°12.0	10	331°01.6	-23°20.8	10	330°39.5	-23°25.4	10	330°17.0	-23°25.8	10	329°54.6	-23°21.9
11	346°23.0	-23°12.2	11	346°01.3	-23°20.9	11	345°39.2	-23°25.5	11	345°16.7	-23°25.8	11	344°54.3	-23°21.9
12	1°22.7	-23°12.3	12	1°01.0	-23°21.0	12	0°38.8	-23°25.5	12	0°16.4	-23°25.8	12	359°54.0	-23°21.8
13	16°22.4	-23°12.5	13	16°00.7	-23°21.1	13	15°38.5	-23°25.5	13	15°16.1	-23°25.7	13	14°53.7	-23°21.7
14	31°22.1	-23°12.6	14	31°00.4	-23°21.2	14	30°38.2	-23°25.6	14	30°15.8	-23°25.7	14	29°53.4	-23°21.6
15	46°21.8	-23°12.8	15	46°00.1	-23°21.3	15	45°37.9	-23°25.6	15	45°15.5	-23°25.7	15	44°53.1	-23°21.5
16	61°21.5	-23°12.9	16	60°59.8	-23°21.4	16	60°37.6	-23°25.6	16	60°15.2	-23°25.6	16	59°52.8	-23°21.4
17	76°21.2	-23°13.1	17	75°59.5	-23°21.5	17	75°37.3	-23°25.7	17	75°14.9	-23°25.6	17	74°52.4	-23°21.3
18	91°20.9	-23°13.2	18	90°59.2	-23°21.5	18	90°37.0	-23°25.7	18	90°14.6	-23°25.6	18	89°52.1	-23°21.2
19	106°20.6	-23°13.4	19	105°58.9	-23°21.6	19	105°36.7	-23°25.7	19	105°14.2	-23°25.6	19	104°51.8	-23°21.2
20	121°20.3	-23°13.5	20	120°58.6	-23°21.7	20	120°36.4	-23°25.7	20	120°13.9	-23°25.5	20	119°51.5	-23°21.1
21	136°20.0	-23°13.6	21	135°58.3	-23°21.8	21	135°36.1	-23°25.8	21	135°13.6	-23°25.5	21	134°51.2	-23°21.0
22	151°19.7	-23°13.8	22	150°58.0	-									

27	GHA	Dec	30	GHA	Dec	02	GHA	Dec	05	GHA	Dec	08	GHA	Dec
0	179°50.3	-23°20.7	0	179°28.2	-23°11.8	0	179°06.6	-22°58.7	0	178°45.8	-22°41.5	0	178°26.0	-22°20.2
1	194°50.0	-23°20.6	1	194°27.9	-23°11.6	1	194°06.3	-22°58.5	1	193°45.5	-22°41.2	1	193°25.7	-22°19.9
2	209°49.7	-23°20.5	2	209°27.6	-23°11.5	2	209°06.0	-22°58.3	2	208°45.2	-22°41.0	2	208°25.5	-22°19.6
3	224°49.3	-23°20.4	3	224°27.3	-23°11.3	3	224°05.7	-22°58.1	3	223°45.0	-22°40.7	3	223°25.2	-22°19.3
4	239°49.0	-23°20.3	4	239°27.0	-23°11.2	4	239°05.4	-22°57.9	4	238°44.7	-22°40.4	4	238°24.9	-22°18.9
5	254°48.7	-23°20.2	5	254°26.6	-23°11.0	5	254°05.1	-22°57.6	5	253°44.4	-22°40.1	5	253°24.7	-22°18.6
6	269°48.4	-23°20.1	6	269°26.3	-23°10.9	6	269°04.8	-22°57.4	6	268°44.1	-22°39.9	6	268°24.4	-22°18.3
7	284°48.1	-23°20.0	7	284°26.0	-23°10.7	7	284°04.5	-22°57.2	7	283°43.8	-22°39.6	7	283°24.1	-22°17.9
8	299°47.8	-23°19.9	8	299°25.7	-23°10.5	8	299°04.3	-22°57.0	8	298°43.6	-22°39.3	8	298°23.9	-22°17.6
9	314°47.5	-23°19.8	9	314°25.4	-23°10.4	9	314°04.0	-22°56.8	9	313°43.3	-22°39.1	9	313°23.6	-22°17.3
10	329°47.2	-23°19.7	10	329°25.1	-23°10.2	10	329°03.7	-22°56.6	10	328°43.0	-22°38.8	10	328°23.3	-22°17.0
11	344°46.9	-23°19.6	11	344°24.8	-23°10.1	11	344°03.4	-22°56.3	11	343°42.7	-22°38.5	11	343°23.1	-22°16.6
12	359°46.6	-23°19.5	12	359°24.5	-23°09.9	12	359°03.1	-22°56.1	12	358°42.4	-22°38.2	12	358°22.8	-22°16.3
13	14°46.3	-23°19.4	13	14°24.2	-23°09.7	13	14°02.8	-22°55.9	13	13°42.2	-22°37.9	13	13°22.5	-22°16.0
14	29°45.9	-23°19.3	14	29°23.9	-23°09.6	14	29°02.5	-22°55.7	14	28°41.9	-22°37.7	14	28°22.3	-22°15.6
15	44°45.6	-23°19.2	15	44°23.6	-23°09.4	15	44°02.2	-22°55.5	15	43°41.6	-22°37.4	15	43°22.0	-22°15.3
16	59°45.3	-23°19.1	16	59°23.3	-23°09.2	16	59°01.9	-22°55.2	16	58°41.3	-22°37.1	16	58°21.7	-22°15.0
17	74°45.0	-23°19.0	17	74°23.0	-23°09.1	17	74°01.6	-22°55.0	17	73°41.0	-22°36.8	17	73°21.5	-22°14.6
18	89°44.7	-23°18.9	18	89°22.7	-23°08.9	18	89°01.3	-22°54.8	18	88°40.8	-22°36.6	18	88°21.2	-22°14.3
19	104°44.4	-23°18.8	19	104°22.4	-23°08.7	19	104°01.0	-22°54.6	19	103°40.5	-22°36.3	19	103°20.9	-22°14.0
20	119°44.1	-23°18.6	20	119°22.1	-23°08.6	20	119°00.7	-22°54.3	20	118°40.2	-22°36.0	20	118°20.7	-22°13.6
21	134°43.8	-23°18.5	21	134°21.8	-23°08.4	21	134°00.5	-22°54.1	21	133°39.9	-22°35.7	21	133°20.4	-22°13.3
22	149°43.5	-23°18.4	22	149°21.5	-23°08.2	22	149°00.2	-22°53.9	22	148°39.6	-22°35.4	22	148°20.2	-22°12.9
23	164°43.2	-23°18.3	23	164°21.2	-23°08.1	23	163°59.9	-22°53.7	23	163°39.4	-22°35.1	23	163°19.9	-22°12.6
	SD.=16.3	d=0.1		SD.=16.3	d=0.2		SD.=16.3	d=0.2		SD.=16.3	d=0.3		SD.=16.3	d=0.3

28	GHA	Dec	31	GHA	Dec	03	GHA	Dec	06	GHA	Dec	09	GHA	Dec
0	179°42.9	-23°18.2	0	179°20.9	-23°07.9	0	178°59.6	-22°53.4	0	178°39.1	-22°34.8	0	178°19.6	-22°12.3
1	194°42.6	-23°18.1	1	194°20.6	-23°07.7	1	193°59.3	-22°53.2	1	193°38.8	-22°34.6	1	193°19.4	-22°11.9
2	209°42.2	-23°18.0	2	209°20.3	-23°07.5	2	208°59.0	-22°53.0	2	208°38.5	-22°34.3	2	208°19.1	-22°11.6
3	224°41.9	-23°17.9	3	224°20.0	-23°07.4	3	223°58.7	-22°52.7	3	223°38.3	-22°34.0	3	223°18.8	-22°11.2
4	239°41.6	-23°17.7	4	239°19.7	-23°07.2	4	238°58.4	-22°52.5	4	238°38.0	-22°33.7	4	238°18.6	-22°10.9
5	254°41.3	-23°17.6	5	254°19.4	-23°07.0	5	253°58.1	-22°52.3	5	253°37.7	-22°33.4	5	253°18.3	-22°10.5
6	269°41.0	-23°17.5	6	269°19.1	-23°06.8	6	268°57.8	-22°52.0	6	268°37.4	-22°33.1	6	268°18.1	-22°10.2
7	284°40.7	-23°17.4	7	284°18.8	-23°06.7	7	283°57.5	-22°51.8	7	283°37.1	-22°32.8	7	283°17.8	-22°09.8
8	299°40.4	-23°17.3	8	299°18.5	-23°06.5	8	298°57.3	-22°51.6	8	298°36.9	-22°32.5	8	298°17.5	-22°09.5
9	314°40.1	-23°17.1	9	314°18.2	-23°06.3	9	313°57.0	-22°51.3	9	313°36.6	-22°32.2	9	313°17.3	-22°09.2
10	329°39.8	-23°17.0	10	329°17.9	-23°06.1	10	328°56.7	-22°51.1	10	328°36.3	-22°31.9	10	328°17.0	-22°08.8
11	344°39.5	-23°16.9	11	344°17.6	-23°06.0	11	343°56.4	-22°50.8	11	343°36.0	-22°31.7	11	343°16.8	-22°08.5
12	359°39.2	-23°16.8	12	359°17.3	-23°05.8	12	358°56.1	-22°50.6	12	358°35.8	-22°31.4	12	358°16.5	-22°08.1
13	14°38.9	-23°16.6	13	14°17.0	-23°05.6	13	13°55.8	-22°50.4	13	13°35.5	-22°31.1	13	13°16.2	-22°07.8
14	29°38.6	-23°16.5	14	29°16.7	-23°05.4	14	28°55.5	-22°50.1	14	28°35.2	-22°30.8	14	28°16.0	-22°07.4
15	44°38.2	-23°16.4	15	44°16.4	-23°05.2	15	43°55.2	-22°49.9	15	43°34.9	-22°30.5	15	43°15.7	-22°07.1
16	59°37.9	-23°16.3	16	59°16.1	-23°05.0	16	58°54.9	-22°49.6	16	58°34.7	-22°30.2	16	58°15.5	-22°06.7
17	74°37.6	-23°16.1	17	74°15.8	-23°04.8	17	73°54.7	-22°49.4	17	73°34.4	-22°29.9	17	73°15.2	-22°06.3
18	89°37.3	-23°16.0	18	89°15.5	-23°04.7	18	88°54.4	-22°49.2	18	88°34.1	-22°29.6	18	88°14.9	-22°06.0
19	104°37.0	-23°15.9	19	104°15.2	-23°04.5	19	103°54.1	-22°48.9	19	103°33.8	-22°29.3	19	103°14.7	-22°05.6
20	119°36.7	-23°15.8	20	119°14.9	-23°04.3	20	118°53.8	-22°48.7	20	118°33.6	-22°29.0	20	118°14.4	-22°05.3
21	134°36.4	-23°15.6	21	134°14.6	-23°04.1	21	133°53.5	-22°48.4	21	133°33.3	-22°28.7	21	133°14.2	-22°04.9
22	149°36.1	-23°15.5	22	149°14.3	-23°03.9	22	148°53.2	-22°48.2	22	148°33.0	-22°28.4	22	148°13.9	-22°04.6
23	164°35.8	-23°15.4	23	164°14.0	-23°03.7	23	163°52.9	-22°47.9	23	163°32.8	-22°28.1	23	163°13.7	-22°04.2
	SD.=16.3	d=0.1		SD.=16.3	d=0.2		SD.=16.3	d=0.2		SD.=16.3	d=0.3		SD.=16.3	d=0.3

29	GHA	Dec	01	GHA	Dec	04	GHA	Dec	07	GHA	Dec	10	GHA	Dec
0	179°35.5	-23°15.2	0	179°13.7	-23°03.5	0	178°52.6	-22°47.7	0	178°32.5	-22°27.8	0	178°13.4	-22°03.8
1	194°35.2	-23°15.1	1	194°13.4	-23°03.3	1	193°52.4	-22°47.4	1	193°32.2	-22°27.5	1	193°13.1	-22°03.5
2	209°34.9	-23°15.0	2	209°13.1	-23°03.1	2	208°52.1	-22°47.2	2	208°31.9	-22°27.1	2	208°12.9	-22°03.1
3	224°34.6	-23°14.8	3	224°12.8	-23°03.0	3	223°51.8	-22°46.9	3	223°31.7	-22°26.8	3	223°12.6	-22°02.8
4	239°34.3	-23°14.7	4	239°12.5	-23°02.8	4	238°51.5	-22°46.7	4	238°31.4	-22°26.5	4	238°12.4	-22°02.4
5	254°34.0	-23°14.6	5	254°12.2	-23°02.6	5	253°51.2	-22°46.4	5	253°31.1	-22°26.2	5	253°12.1	-22°02.0
6	269°33.7	-23°14.4	6	269°11.9	-23°02.4	6	268°50.9	-22°46.2	6	268°30.8	-22°25.9	6	268°11.9	-22°01.7
7	284°33.3	-23°14.3	7	284°11.6	-23°02.2	7	283°50.6	-22°45.9	7	283°30.6	-22°25.6	7	283°11.6	-22°01.3
8	299°33.0	-23°14.1	8	299°11.3	-23°02.0	8	298°50.4	-22°45.7	8	298°30.3	-22°25.3	8	298°11.4	-22°01.0
9	314°32.7	-23°14.0	9	314°11.0	-23°01.8	9	313°50.1	-22°45.4	9	313°30.0	-22°25.0	9	313°11.1	-22°00.6
10	329°32.4	-23°13.9	10	329°10.7	-23°01.6	10	328°49.8	-22°45.2	10	328°29.8	-22°24.7	10	328°10.8	-22°00.2
11	344°32.1	-23°13.7	11	344°10.4	-23°01.4	11	343°49.5	-22°44.9	11	343°29.5	-22°24.4	11	343°10.6	-21°59.9
12	359°31.8	-23°13.6	12	359°10.2	-23°01.2	12	358°49.2	-22°44.6	12	358°29.2	-22°24.0	12	358°10.3	-21°59.5
13	14°31.5	-23°13.4	13	14°09.9	-23°01.0	13	13°48.9	-22°44.4	13	13°28.9	-22°23.7	13	13°10.1	-21°59.1
14	29°31.2	-23°13.3	14	29°09.6	-23°00.8	14	28°48.6	-22°44.1	14	28°28.7	-22°23.4	14	28°09.8	-21°58.7
15	44°30.9	-23°13.1	15	44°09.3	-23°00.6	15	43°48.4	-22°43.9	15	43°28.4	-22°23.1	15	43°09.6	-21°58.4
16	59°30.6	-23°13.0	16	59°09.0	-23°00.4	16	58°48.1	-22°43.6	16	58°28.1	-22°22.8	16	58°09.3	-21°58.0
17	74°30.3	-23°12.8	17	74°08.7	-23°00.2	17	73°47.8	-22°43.3	17	73°27.9	-22°22.5	17	73°09.1	-21°57.6
18	89°30.0	-23°12.7	18	89°08.4	-22°59.9	18	88°47.5	-22°43.1	18	88°27.6	-22°22.2	18	88°08.8	-21°57.3
19	104°29.7	-23°12.5	19	104°08.1	-22°59.7	19	103°47.2	-22°42.8	19	103°27.3	-22°21.8	19	103°08.6	-21°56.9
20	119°29.4	-23°12.4	20	119°07.8	-22°59.5	20	118°46.9	-22°42.6	20	118°27.1	-22°21.5	20	118°08.3	-21°56.5
21	134°29.1	-23°12.2	21	134°07.5	-22°59.3	21	133°46.7	-22°42.3	21	133°26.8	-22°21.2	21	133°08.1	-21°56.1
22	149°28.8	-23°12.1	22	149°07.2	-22°59.1	22	148°46.4	-22°42.0	22	148°26.5	-22°20.9	22	148°07.8	-21°55.8
23	164°28.5	-23°11.9	23	164°06.9	-22°58.9	23	163°46.1	-22°41.8	23	163°26.3	-22°20.5	23	163°07.6	