

TOTAL SOLAR ECLIPSE OF 2012 NOVEMBER 13

TABLE 7 – MAPPING COORDINATES FOR THE PATH OF TOTALITY - EXTENDED

ΔT = 66.8 s

Longitude	Latitude of:			Circumstances on Central Line				
	Northern Limit	Southern Limit	Central Line	Universal Time h m s	Sun Alt °	Sun Az. °	Path Width km	Central Durat.
133°07.5'E	—	12°34.10'S	11°57.80'S	20:36:06	0.0	108.6	126.0	01m40.9s
133°15.0'E	—	12°36.66'S	12°00.29'S	20:36:06	0.2	108.6	126.2	01m41.1s
133°22.5'E	—	12°39.23'S	12°02.80'S	20:36:06	0.3	108.6	126.4	01m41.3s
133°30.0'E	11°29.24'S	12°41.80'S	12°05.31'S	20:36:06	0.4	108.6	126.5	01m41.5s
133°37.5'E	11°31.70'S	12°44.37'S	12°07.83'S	20:36:06	0.6	108.5	126.7	01m41.7s
133°45.0'E	11°34.17'S	12°46.96'S	12°10.35'S	20:36:07	0.7	108.5	126.9	01m41.9s
133°52.5'E	11°36.63'S	12°49.55'S	12°12.88'S	20:36:07	0.8	108.5	127.1	01m42.2s
134°00.0'E	11°39.11'S	12°52.14'S	12°15.41'S	20:36:07	1.0	108.5	127.2	01m42.4s
134°07.5'E	11°41.59'S	12°54.74'S	12°17.95'S	20:36:07	1.1	108.4	127.4	01m42.6s
134°15.0'E	11°44.08'S	12°57.35'S	12°20.50'S	20:36:08	1.2	108.4	127.6	01m42.8s
134°22.5'E	11°46.58'S	12°59.97'S	12°23.05'S	20:36:08	1.3	108.4	127.8	01m43.0s
134°30.0'E	11°49.08'S	13°02.59'S	12°25.61'S	20:36:08	1.5	108.3	127.9	01m43.2s
134°37.5'E	11°51.58'S	13°05.21'S	12°28.18'S	20:36:09	1.6	108.3	128.1	01m43.5s
134°45.0'E	11°54.10'S	13°07.85'S	12°30.75'S	20:36:09	1.7	108.3	128.3	01m43.7s
134°52.5'E	11°56.61'S	13°10.49'S	12°33.33'S	20:36:10	1.9	108.3	128.5	01m43.9s
135°00.0'E	11°59.14'S	13°13.13'S	12°35.92'S	20:36:10	2.0	108.2	128.6	01m44.1s
135°07.5'E	12°01.67'S	13°15.79'S	12°38.51'S	20:36:11	2.1	108.2	128.8	01m44.3s
135°15.0'E	12°04.21'S	13°18.45'S	12°41.11'S	20:36:11	2.3	108.2	129.0	01m44.6s
135°22.5'E	12°06.75'S	13°21.11'S	12°43.71'S	20:36:12	2.4	108.2	129.2	01m44.8s
135°30.0'E	12°09.30'S	13°23.79'S	12°46.32'S	20:36:13	2.5	108.1	129.3	01m45.0s
135°37.5'E	12°11.86'S	13°26.46'S	12°48.94'S	20:36:13	2.7	108.1	129.5	01m45.2s
135°45.0'E	12°14.42'S	13°29.15'S	12°51.56'S	20:36:14	2.8	108.1	129.7	01m45.5s
135°52.5'E	12°16.99'S	13°31.84'S	12°54.19'S	20:36:15	2.9	108.0	129.9	01m45.7s
136°00.0'E	12°19.56'S	13°34.54'S	12°56.82'S	20:36:16	3.1	108.0	130.0	01m45.9s
136°07.5'E	12°22.14'S	13°37.24'S	12°59.47'S	20:36:16	3.2	108.0	130.2	01m46.1s
136°15.0'E	12°24.73'S	13°39.95'S	13°02.11'S	20:36:17	3.3	108.0	130.4	01m46.4s
136°22.5'E	12°27.32'S	13°42.67'S	13°04.77'S	20:36:18	3.5	107.9	130.6	01m46.6s
136°30.0'E	12°29.92'S	13°45.39'S	13°07.43'S	20:36:19	3.6	107.9	130.7	01m46.8s
136°37.5'E	12°32.53'S	13°48.12'S	13°10.10'S	20:36:20	3.7	107.9	130.9	01m47.0s
136°45.0'E	12°35.14'S	13°50.86'S	13°12.77'S	20:36:21	3.9	107.8	131.1	01m47.3s
136°52.5'E	12°37.76'S	13°53.60'S	13°15.45'S	20:36:22	4.0	107.8	131.3	01m47.5s
137°00.0'E	12°40.38'S	13°56.35'S	13°18.14'S	20:36:23	4.1	107.8	131.5	01m47.7s
137°07.5'E	12°43.01'S	13°59.11'S	13°20.83'S	20:36:24	4.3	107.7	131.6	01m48.0s
137°15.0'E	12°45.65'S	14°01.87'S	13°23.53'S	20:36:26	4.4	107.7	131.8	01m48.2s
137°22.5'E	12°48.29'S	14°04.64'S	13°26.23'S	20:36:27	4.5	107.7	132.0	01m48.4s
137°30.0'E	12°50.94'S	14°07.41'S	13°28.95'S	20:36:28	4.7	107.7	132.2	01m48.7s
137°37.5'E	12°53.60'S	14°10.20'S	13°31.66'S	20:36:29	4.8	107.6	132.3	01m48.9s
137°45.0'E	12°56.26'S	14°12.98'S	13°34.39'S	20:36:31	4.9	107.6	132.5	01m49.1s
137°52.5'E	12°58.93'S	14°15.78'S	13°37.12'S	20:36:32	5.1	107.6	132.7	01m49.4s
138°00.0'E	13°01.60'S	14°18.58'S	13°39.86'S	20:36:34	5.2	107.5	132.9	01m49.6s
138°07.5'E	13°04.28'S	14°21.39'S	13°42.60'S	20:36:35	5.3	107.5	133.1	01m49.8s
138°15.0'E	13°06.97'S	14°24.20'S	13°45.35'S	20:36:36	5.5	107.5	133.2	01m50.1s
138°22.5'E	13°09.66'S	14°27.02'S	13°48.10'S	20:36:38	5.6	107.4	133.4	01m50.3s
138°30.0'E	13°12.36'S	14°29.85'S	13°50.87'S	20:36:40	5.7	107.4	133.6	01m50.6s
138°37.5'E	13°15.07'S	14°32.68'S	13°53.64'S	20:36:41	5.9	107.4	133.8	01m50.8s
138°45.0'E	13°17.78'S	14°35.52'S	13°56.41'S	20:36:43	6.0	107.3	133.9	01m51.0s
138°52.5'E	13°20.50'S	14°38.37'S	13°59.19'S	20:36:44	6.1	107.3	134.1	01m51.3s
139°00.0'E	13°23.22'S	14°41.22'S	14°01.98'S	20:36:46	6.3	107.3	134.3	01m51.5s
139°07.5'E	13°25.95'S	14°44.08'S	14°04.78'S	20:36:48	6.4	107.2	134.5	01m51.8s
139°15.0'E	13°28.69'S	14°46.95'S	14°07.58'S	20:36:50	6.6	107.2	134.7	01m52.0s
139°22.5'E	13°31.43'S	14°49.82'S	14°10.39'S	20:36:52	6.7	107.2	134.8	01m52.3s
139°30.0'E	13°34.18'S	14°52.70'S	14°13.20'S	20:36:53	6.8	107.1	135.0	01m52.5s
139°37.5'E	13°36.94'S	14°55.59'S	14°16.02'S	20:36:55	7.0	107.1	135.2	01m52.7s
139°45.0'E	13°39.70'S	14°58.48'S	14°18.85'S	20:36:57	7.1	107.1	135.4	01m53.0s
139°52.5'E	13°42.47'S	15°01.38'S	14°21.68'S	20:36:59	7.2	107.0	135.6	01m53.2s

TOTAL SOLAR ECLIPSE OF 2012 NOVEMBER 13

TABLE 7 – MAPPING COORDINATES FOR THE PATH OF TOTALITY - EXTENDED *(continued)*

$\Delta T = 66.8 \text{ s}$

Longitude	Latitude of:			Circumstances on Central Line				
	Northern Limit	Southern Limit	Central Line	Universal Time h m s	Sun Alt °	Sun Az. °	Path Width km	Central Durat.
140°00.0'E	13°45.25'S	15°04.28'S	14°24.52'S	20:37:01	7.4	107.0	135.7	01m53.5s
140°07.5'E	13°48.03'S	15°07.20'S	14°27.37'S	20:37:03	7.5	107.0	135.9	01m53.7s
140°15.0'E	13°50.82'S	15°10.12'S	14°30.22'S	20:37:06	7.7	106.9	136.1	01m54.0s
140°22.5'E	13°53.61'S	15°13.04'S	14°33.08'S	20:37:08	7.8	106.9	136.3	01m54.2s
140°30.0'E	13°56.41'S	15°15.97'S	14°35.94'S	20:37:10	7.9	106.9	136.5	01m54.5s
140°37.5'E	13°59.22'S	15°18.91'S	14°38.82'S	20:37:12	8.1	106.8	136.6	01m54.7s
140°45.0'E	14°02.03'S	15°21.86'S	14°41.69'S	20:37:14	8.2	106.8	136.8	01m55.0s
140°52.5'E	14°04.85'S	15°24.81'S	14°44.58'S	20:37:17	8.3	106.8	137.0	01m55.2s
141°00.0'E	14°07.68'S	15°27.76'S	14°47.47'S	20:37:19	8.5	106.7	137.2	01m55.5s
141°07.5'E	14°10.51'S	15°30.73'S	14°50.37'S	20:37:22	8.6	106.7	137.4	01m55.7s
141°15.0'E	14°13.35'S	15°33.70'S	14°53.27'S	20:37:24	8.8	106.7	137.5	01m56.0s
141°22.5'E	14°16.19'S	15°36.68'S	14°56.18'S	20:37:26	8.9	106.6	137.7	01m56.2s
141°30.0'E	14°19.05'S	15°39.66'S	14°59.10'S	20:37:29	9.0	106.6	137.9	01m56.5s
141°37.5'E	14°21.90'S	15°42.65'S	15°02.02'S	20:37:32	9.2	106.5	138.1	01m56.8s
141°45.0'E	14°24.77'S	15°45.65'S	15°04.95'S	20:37:34	9.3	106.5	138.3	01m57.0s
141°52.5'E	14°27.64'S	15°48.65'S	15°07.89'S	20:37:37	9.5	106.5	138.4	01m57.3s
142°00.0'E	14°30.52'S	15°51.66'S	15°10.83'S	20:37:40	9.6	106.4	138.6	01m57.5s
142°07.5'E	14°33.40'S	15°54.68'S	15°13.78'S	20:37:42	9.7	106.4	138.8	01m57.8s
142°15.0'E	14°36.29'S	15°57.70'S	15°16.74'S	20:37:45	9.9	106.4	139.0	01m58.0s
142°22.5'E	14°39.18'S	16°00.73'S	15°19.70'S	20:37:48	10.0	106.3	139.2	01m58.3s
142°30.0'E	14°42.09'S	16°03.77'S	15°22.67'S	20:37:51	10.2	106.3	139.3	01m58.6s
142°37.5'E	14°45.00'S	16°06.81'S	15°25.64'S	20:37:54	10.3	106.2	139.5	01m58.8s
142°45.0'E	14°47.91'S	16°09.86'S	15°28.62'S	20:37:57	10.4	106.2	139.7	01m59.1s
142°52.5'E	14°50.83'S	16°12.91'S	15°31.61'S	20:38:00	10.6	106.2	139.9	01m59.4s
143°00.0'E	14°53.76'S	16°15.98'S	15°34.61'S	20:38:03	10.7	106.1	140.1	01m59.6s
143°07.5'E	14°56.69'S	16°19.05'S	15°37.61'S	20:38:06	10.9	106.1	140.2	01m59.9s
143°15.0'E	14°59.64'S	16°22.12'S	15°40.61'S	20:38:09	11.0	106.0	140.4	02m00.1s
143°22.5'E	15°02.58'S	16°25.20'S	15°43.63'S	20:38:12	11.2	106.0	140.6	02m00.4s
143°30.0'E	15°05.54'S	16°28.29'S	15°46.65'S	20:38:15	11.3	106.0	140.8	02m00.7s
143°37.5'E	15°08.50'S	16°31.39'S	15°49.68'S	20:38:19	11.4	105.9	141.0	02m00.9s
143°45.0'E	15°11.46'S	16°34.49'S	15°52.71'S	20:38:22	11.6	105.9	141.2	02m01.2s
143°52.5'E	15°14.43'S	16°37.60'S	15°55.75'S	20:38:25	11.7	105.8	141.3	02m01.5s
144°00.0'E	15°17.41'S	16°40.71'S	15°58.79'S	20:38:29	11.9	105.8	141.5	02m01.8s
144°07.5'E	15°20.40'S	16°43.83'S	16°01.85'S	20:38:32	12.0	105.8	141.7	02m02.0s
144°15.0'E	15°23.39'S	16°46.96'S	16°04.91'S	20:38:36	12.1	105.7	141.9	02m02.3s
144°22.5'E	15°26.39'S	16°50.09'S	16°07.97'S	20:38:39	12.3	105.7	142.1	02m02.6s
144°30.0'E	15°29.39'S	16°53.23'S	16°11.04'S	20:38:43	12.4	105.6	142.2	02m02.8s
144°37.5'E	15°32.40'S	16°56.38'S	16°14.12'S	20:38:46	12.6	105.6	142.4	02m03.1s
144°45.0'E	15°35.42'S	16°59.53'S	16°17.20'S	20:38:50	12.7	105.6	142.6	02m03.4s
144°52.5'E	15°38.44'S	17°02.69'S	16°20.30'S	20:38:54	12.9	105.5	142.8	02m03.7s
145°00.0'E	15°41.47'S	17°05.86'S	16°23.39'S	20:38:58	13.0	105.5	143.0	02m03.9s
145°07.5'E	15°44.51'S	17°09.03'S	16°26.50'S	20:39:01	13.2	105.4	143.1	02m04.2s
145°15.0'E	15°47.55'S	17°12.21'S	16°29.61'S	20:39:05	13.3	105.4	143.3	02m04.5s
145°22.5'E	15°50.60'S	17°15.40'S	16°32.72'S	20:39:09	13.4	105.3	143.5	02m04.8s
145°30.0'E	15°53.65'S	17°18.59'S	16°35.85'S	20:39:13	13.6	105.3	143.7	02m05.1s
145°37.5'E	15°56.71'S	17°21.79'S	16°38.97'S	20:39:17	13.7	105.3	143.9	02m05.3s
145°45.0'E	15°59.78'S	17°24.99'S	16°42.11'S	20:39:21	13.9	105.2	144.0	02m05.6s
145°52.5'E	16°02.86'S	17°28.20'S	16°45.25'S	20:39:25	14.0	105.2	144.2	02m05.9s
146°00.0'E	16°05.94'S	17°31.42'S	16°48.40'S	20:39:29	14.2	105.1	144.4	02m06.2s
146°07.5'E	16°09.02'S	17°34.65'S	16°51.56'S	20:39:34	14.3	105.1	144.6	02m06.5s
146°15.0'E	16°12.12'S	17°37.88'S	16°54.72'S	20:39:38	14.5	105.0	144.8	02m06.7s
146°22.5'E	16°15.22'S	17°41.11'S	16°57.88'S	20:39:42	14.6	105.0	144.9	02m07.0s
146°30.0'E	16°18.32'S	17°44.36'S	17°01.06'S	20:39:46	14.7	104.9	145.1	02m07.3s

TOTAL SOLAR ECLIPSE OF 2012 NOVEMBER 13

TABLE 7 – MAPPING COORDINATES FOR THE PATH OF TOTALITY - EXTENDED *(continued)*

$\Delta T = 66.8 \text{ s}$

Longitude	Latitude of:			Circumstances on Central Line				
	Northern Limit	Southern Limit	Central Line	Universal Time h m s	Sun Alt °	Sun Az. °	Path Width km	Central Durat.
146°37.5'E	16°21.43'S	17°47.61'S	17°04.24'S	20:39:51	14.9	104.9	145.3	02m07.6s
146°45.0'E	16°24.55'S	17°50.86'S	17°07.42'S	20:39:55	15.0	104.8	145.5	02m07.9s
146°52.5'E	16°27.68'S	17°54.12'S	17°10.62'S	20:40:00	15.2	104.8	145.7	02m08.2s
147°00.0'E	16°30.81'S	17°57.39'S	17°13.82'S	20:40:04	15.3	104.8	145.8	02m08.4s
147°07.5'E	16°33.94'S	18°00.67'S	17°17.02'S	20:40:09	15.5	104.7	146.0	02m08.7s
147°15.0'E	16°37.08'S	18°03.95'S	17°20.23'S	20:40:13	15.6	104.7	146.2	02m09.0s
147°22.5'E	16°40.23'S	18°07.24'S	17°23.45'S	20:40:18	15.8	104.6	146.4	02m09.3s
147°30.0'E	16°43.39'S	18°10.53'S	17°26.68'S	20:40:23	15.9	104.6	146.6	02m09.6s
147°37.5'E	16°46.55'S	18°13.83'S	17°29.91'S	20:40:27	16.1	104.5	146.7	02m09.9s
147°45.0'E	16°49.72'S	18°17.14'S	17°33.14'S	20:40:32	16.2	104.5	146.9	02m10.2s
147°52.5'E	16°52.89'S	18°20.45'S	17°36.39'S	20:40:37	16.4	104.4	147.1	02m10.5s
148°00.0'E	16°56.07'S	18°23.77'S	17°39.64'S	20:40:42	16.5	104.4	147.3	02m10.8s
148°07.5'E	16°59.26'S	18°27.10'S	17°42.89'S	20:40:47	16.7	104.3	147.4	02m11.1s
148°15.0'E	17°02.45'S	18°30.43'S	17°46.15'S	20:40:52	16.8	104.3	147.6	02m11.4s
148°22.5'E	17°05.65'S	18°33.77'S	17°49.42'S	20:40:57	17.0	104.2	147.8	02m11.7s
148°30.0'E	17°08.86'S	18°37.11'S	17°52.69'S	20:41:02	17.1	104.2	148.0	02m12.0s
148°37.5'E	17°12.07'S	18°40.46'S	17°55.97'S	20:41:07	17.3	104.1	148.2	02m12.3s
148°45.0'E	17°15.29'S	18°43.82'S	17°59.26'S	20:41:12	17.4	104.1	148.3	02m12.6s
148°52.5'E	17°18.51'S	18°47.18'S	18°02.55'S	20:41:18	17.5	104.0	148.5	02m12.8s
149°00.0'E	17°21.74'S	18°50.55'S	18°05.85'S	20:41:23	17.7	104.0	148.7	02m13.1s
149°07.5'E	17°24.98'S	18°53.92'S	18°09.16'S	20:41:28	17.8	103.9	148.9	02m13.4s
149°15.0'E	17°28.22'S	18°57.31'S	18°12.47'S	20:41:34	18.0	103.9	149.0	02m13.7s
149°22.5'E	17°31.47'S	19°00.69'S	18°15.79'S	20:41:39	18.1	103.8	149.2	02m14.1s
149°30.0'E	17°34.72'S	19°04.09'S	18°19.11'S	20:41:45	18.3	103.7	149.4	02m14.4s
149°37.5'E	17°37.98'S	19°07.49'S	18°22.44'S	20:41:50	18.4	103.7	149.6	02m14.7s
149°45.0'E	17°41.25'S	19°10.89'S	18°25.77'S	20:41:56	18.6	103.6	149.7	02m15.0s
149°52.5'E	17°44.52'S	19°14.30'S	18°29.12'S	20:42:01	18.7	103.6	149.9	02m15.3s
150°00.0'E	17°47.80'S	19°17.72'S	18°32.46'S	20:42:07	18.9	103.5	150.1	02m15.6s
150°07.5'E	17°51.08'S	19°21.14'S	18°35.82'S	20:42:13	19.0	103.5	150.3	02m15.9s
150°15.0'E	17°54.37'S	19°24.57'S	18°39.18'S	20:42:19	19.2	103.4	150.5	02m16.2s
150°22.5'E	17°57.67'S	19°28.01'S	18°42.54'S	20:42:25	19.3	103.4	150.6	02m16.5s
150°30.0'E	18°00.97'S	19°31.45'S	18°45.91'S	20:42:30	19.5	103.3	150.8	02m16.8s
150°37.5'E	18°04.28'S	19°34.90'S	18°49.29'S	20:42:36	19.6	103.3	151.0	02m17.1s
150°45.0'E	18°07.59'S	19°38.35'S	18°52.67'S	20:42:42	19.8	103.2	151.1	02m17.4s
150°52.5'E	18°10.91'S	19°41.81'S	18°56.06'S	20:42:48	20.0	103.1	151.3	02m17.7s
151°00.0'E	18°14.24'S	19°45.28'S	18°59.46'S	20:42:54	20.1	103.1	151.5	02m18.0s
151°07.5'E	18°17.57'S	19°48.75'S	19°02.86'S	20:43:01	20.3	103.0	151.7	02m18.3s
151°15.0'E	18°20.91'S	19°52.22'S	19°06.27'S	20:43:07	20.4	103.0	151.8	02m18.7s
151°22.5'E	18°24.25'S	19°55.71'S	19°09.68'S	20:43:13	20.6	102.9	152.0	02m19.0s
151°30.0'E	18°27.60'S	19°59.20'S	19°13.10'S	20:43:19	20.7	102.9	152.2	02m19.3s
151°37.5'E	18°30.96'S	20°02.69'S	19°16.52'S	20:43:26	20.9	102.8	152.4	02m19.6s
151°45.0'E	18°34.32'S	20°06.19'S	19°19.95'S	20:43:32	21.0	102.7	152.5	02m19.9s
151°52.5'E	18°37.69'S	20°09.70'S	19°23.39'S	20:43:39	21.2	102.7	152.7	02m20.2s
152°00.0'E	18°41.06'S	20°13.21'S	19°26.83'S	20:43:45	21.3	102.6	152.9	02m20.5s
152°07.5'E	18°44.44'S	20°16.73'S	19°30.28'S	20:43:52	21.5	102.6	153.1	02m20.9s
152°15.0'E	18°47.82'S	20°20.25'S	19°33.73'S	20:43:58	21.6	102.5	153.2	02m21.2s
152°22.5'E	18°51.22'S	20°23.78'S	19°37.19'S	20:44:05	21.8	102.4	153.4	02m21.5s
152°30.0'E	18°54.61'S	20°27.31'S	19°40.66'S	20:44:12	21.9	102.4	153.6	02m21.8s
152°37.5'E	18°58.01'S	20°30.85'S	19°44.13'S	20:44:19	22.1	102.3	153.7	02m22.1s
152°45.0'E	19°01.42'S	20°34.40'S	19°47.60'S	20:44:25	22.2	102.2	153.9	02m22.5s
152°52.5'E	19°04.83'S	20°37.95'S	19°51.09'S	20:44:32	22.4	102.2	154.1	02m22.8s

TOTAL SOLAR ECLIPSE OF 2012 NOVEMBER 13

TABLE 7 – MAPPING COORDINATES FOR THE PATH OF TOTALITY - EXTENDED *(continued)*

$\Delta T = 66.8 \text{ s}$

Longitude	Latitude of:			Circumstances on Central Line				
	Northern Limit	Southern Limit	Central Line	Universal Time h m s	Sun Alt °	Sun Az. °	Path Width km	Central Durat.
153°00.0'E	19°08.25'S	20°41.51'S	19°54.57'S	20:44:39	22.5	102.1	154.2	02m23.1s
153°07.5'E	19°11.68'S	20°45.07'S	19°58.07'S	20:44:46	22.7	102.1	154.4	02m23.4s
153°15.0'E	19°15.11'S	20°48.64'S	20°01.56'S	20:44:53	22.9	102.0	154.6	02m23.8s
153°22.5'E	19°18.54'S	20°52.21'S	20°05.07'S	20:45:00	23.0	101.9	154.8	02m24.1s
153°30.0'E	19°21.98'S	20°55.79'S	20°08.58'S	20:45:07	23.2	101.9	154.9	02m24.4s
153°37.5'E	19°25.43'S	20°59.37'S	20°12.09'S	20:45:15	23.3	101.8	155.1	02m24.7s
153°45.0'E	19°28.88'S	21°02.96'S	20°15.61'S	20:45:22	23.5	101.7	155.3	02m25.1s
153°52.5'E	19°32.34'S	21°06.55'S	20°19.14'S	20:45:29	23.6	101.7	155.4	02m25.4s
154°00.0'E	19°35.80'S	21°10.15'S	20°22.67'S	20:45:37	23.8	101.6	155.6	02m25.7s
154°07.5'E	19°39.27'S	21°13.76'S	20°26.21'S	20:45:44	23.9	101.5	155.8	02m26.0s
154°15.0'E	19°42.75'S	21°17.37'S	20°29.75'S	20:45:51	24.1	101.5	155.9	02m26.4s
154°22.5'E	19°46.23'S	21°20.99'S	20°33.30'S	20:45:59	24.2	101.4	156.1	02m26.7s
154°30.0'E	19°49.71'S	21°24.61'S	20°36.85'S	20:46:07	24.4	101.3	156.3	02m27.0s
154°37.5'E	19°53.20'S	21°28.23'S	20°40.41'S	20:46:14	24.6	101.3	156.4	02m27.4s
154°45.0'E	19°56.70'S	21°31.86'S	20°43.97'S	20:46:22	24.7	101.2	156.6	02m27.7s
154°52.5'E	20°00.20'S	21°35.50'S	20°47.54'S	20:46:30	24.9	101.1	156.8	02m28.0s
155°00.0'E	20°03.70'S	21°39.14'S	20°51.11'S	20:46:37	25.0	101.1	156.9	02m28.4s
155°07.5'E	20°07.22'S	21°42.79'S	20°54.69'S	20:46:45	25.2	101.0	157.1	02m28.7s
155°15.0'E	20°10.73'S	21°46.44'S	20°58.27'S	20:46:53	25.3	100.9	157.2	02m29.0s
155°22.5'E	20°14.25'S	21°50.10'S	21°01.86'S	20:47:01	25.5	100.8	157.4	02m29.4s
155°30.0'E	20°17.78'S	21°53.76'S	21°05.46'S	20:47:09	25.6	100.8	157.6	02m29.7s
155°37.5'E	20°21.31'S	21°57.42'S	21°09.06'S	20:47:17	25.8	100.7	157.7	02m30.0s
155°45.0'E	20°24.85'S	22°01.09'S	21°12.66'S	20:47:25	26.0	100.6	157.9	02m30.4s
155°52.5'E	20°28.39'S	22°04.77'S	21°16.27'S	20:47:34	26.1	100.6	158.1	02m30.7s
156°00.0'E	20°31.94'S	22°08.45'S	21°19.88'S	20:47:42	26.3	100.5	158.2	02m31.0s
156°07.5'E	20°35.49'S	22°12.13'S	21°23.50'S	20:47:50	26.4	100.4	158.4	02m31.4s
156°15.0'E	20°39.05'S	22°15.82'S	21°27.12'S	20:47:58	26.6	100.3	158.5	02m31.7s
156°22.5'E	20°42.61'S	22°19.52'S	21°30.75'S	20:48:07	26.7	100.3	158.7	02m32.1s
156°30.0'E	20°46.18'S	22°23.22'S	21°34.39'S	20:48:15	26.9	100.2	158.9	02m32.4s
156°37.5'E	20°49.75'S	22°26.92'S	21°38.02'S	20:48:24	27.1	100.1	159.0	02m32.7s
156°45.0'E	20°53.33'S	22°30.63'S	21°41.67'S	20:48:32	27.2	100.0	159.2	02m33.1s
156°52.5'E	20°56.91'S	22°34.34'S	21°45.31'S	20:48:41	27.4	99.9	159.3	02m33.4s
157°00.0'E	21°00.49'S	22°38.06'S	21°48.96'S	20:48:50	27.5	99.9	159.5	02m33.8s
157°07.5'E	21°04.09'S	22°41.78'S	21°52.62'S	20:48:58	27.7	99.8	159.7	02m34.1s
157°15.0'E	21°07.68'S	22°45.51'S	21°56.28'S	20:49:07	27.9	99.7	159.8	02m34.5s
157°22.5'E	21°11.28'S	22°49.24'S	21°59.95'S	20:49:16	28.0	99.6	160.0	02m34.8s
157°30.0'E	21°14.89'S	22°52.98'S	22°03.62'S	20:49:25	28.2	99.6	160.1	02m35.2s
157°37.5'E	21°18.50'S	22°56.71'S	22°07.29'S	20:49:34	28.3	99.5	160.3	02m35.5s
157°45.0'E	21°22.11'S	23°00.46'S	22°10.97'S	20:49:43	28.5	99.4	160.4	02m35.8s
157°52.5'E	21°25.73'S	23°04.20'S	22°14.65'S	20:49:52	28.6	99.3	160.6	02m36.2s
158°00.0'E	21°29.35'S	23°07.96'S	22°18.34'S	20:50:01	28.8	99.2	160.7	02m36.5s
158°07.5'E	21°32.98'S	23°11.71'S	22°22.03'S	20:50:10	29.0	99.1	160.9	02m36.9s
158°15.0'E	21°36.61'S	23°15.47'S	22°25.73'S	20:50:19	29.1	99.1	161.0	02m37.2s
158°22.5'E	21°40.25'S	23°19.24'S	22°29.43'S	20:50:29	29.3	99.0	161.2	02m37.6s
158°30.0'E	21°43.89'S	23°23.00'S	22°33.14'S	20:50:38	29.4	98.9	161.4	02m37.9s
158°37.5'E	21°47.54'S	23°26.78'S	22°36.84'S	20:50:47	29.6	98.8	161.5	02m38.3s
158°45.0'E	21°51.19'S	23°30.55'S	22°40.56'S	20:50:57	29.8	98.7	161.7	02m38.6s
158°52.5'E	21°54.84'S	23°34.33'S	22°44.27'S	20:51:06	29.9	98.6	161.8	02m39.0s
159°00.0'E	21°58.50'S	23°38.11'S	22°47.99'S	20:51:16	30.1	98.6	162.0	02m39.3s