

# TOTAL SOLAR ECLIPSE OF 2010 JULY 11

## TABLE 2.C – MAPPING COORDINATES FOR THE ZONES OF GRAZING ECLIPSE

$\Delta T = 66.2 \text{ s}$									
Longitude	North Graze Zone		Northern	South Graze Zone		Southern	Path Azimuth °	Elev Fact	Scale Fact km/''
	Latitudes		Limit	Latitudes		Limit			
	Northern Limit	Southern Limit	Universal Time h m s	Northern Limit	Southern Limit	Universal Time h m s			
170°00.0'W	25°33.23'S	25°33.23'S	18:15:57	27°20.18'S	27°23.39'S	18:17:58	65.4	0.70	2.15
169°00.0'W	25°08.24'S	25°08.24'S	18:16:01	26°55.85'S	26°58.81'S	18:17:53	65.4	0.61	2.06
168°00.0'W	24°43.46'S	24°43.46'S	18:16:07	26°31.69'S	26°34.67'S	18:18:00	65.7	0.63	2.08
167°00.0'W	24°18.89'S	24°18.89'S	18:16:16	26°07.76'S	26°10.75'S	18:18:09	66.0	0.66	2.12
166°00.0'W	23°54.56'S	23°54.56'S	18:16:29	25°44.09'S	25°47.06'S	18:18:21	66.3	0.68	2.13
165°00.0'W	23°30.49'S	23°30.49'S	18:16:44	25°20.68'S	25°23.65'S	18:18:37	66.6	0.69	2.14
164°00.0'W	23°06.11'S	23°06.99'S	18:17:02	24°57.56'S	25°00.52'S	18:18:55	66.9	0.69	2.14
163°00.0'W	22°42.60'S	22°43.49'S	18:17:23	24°34.76'S	24°37.69'S	18:19:16	67.3	0.70	2.15
162°00.0'W	22°19.42'S	22°20.30'S	18:17:48	24°12.29'S	24°15.20'S	18:19:41	67.6	0.70	2.16
161°00.0'W	21°56.59'S	21°57.47'S	18:18:16	23°50.18'S	23°53.06'S	18:20:08	68.0	0.71	2.16
160°00.0'W	21°34.14'S	21°34.99'S	18:18:47	23°28.45'S	23°31.29'S	18:20:40	68.4	0.72	2.17
159°00.0'W	21°12.09'S	21°12.92'S	18:19:21	23°07.13'S	23°09.92'S	18:21:14	68.8	0.72	2.17
158°00.0'W	20°50.48'S	20°51.26'S	18:20:00	22°46.25'S	22°48.98'S	18:21:53	69.3	0.73	2.18
157°00.0'W	20°29.33'S	20°30.06'S	18:20:41	22°25.84'S	22°28.49'S	18:22:35	69.8	0.73	2.18
156°00.0'W	20°08.65'S	20°09.33'S	18:21:27	22°05.92'S	22°08.49'S	18:23:21	70.3	0.74	2.19
155°00.0'W	19°48.47'S	19°49.12'S	18:22:17	21°46.53'S	21°49.20'S	18:24:11	70.8	0.75	2.20
154°00.0'W	19°28.79'S	19°29.45'S	18:23:10	21°27.71'S	21°30.48'S	18:25:05	71.3	0.75	2.21
153°00.0'W	19°09.65'S	19°10.36'S	18:24:08	21°09.48'S	21°12.34'S	18:26:03	71.9	0.76	2.21
152°00.0'W	18°51.15'S	18°51.89'S	18:25:09	20°51.86'S	20°54.83'S	18:27:05	72.6	0.77	2.22
151°00.0'W	18°33.32'S	18°34.07'S	18:26:15	20°34.92'S	20°37.98'S	18:28:11	73.2	0.78	2.23
150°00.0'W	18°16.20'S	18°16.94'S	18:27:26	20°18.68'S	20°21.82'S	18:29:22	73.9	0.79	2.24
149°00.0'W	17°59.80'S	18°00.55'S	18:28:40	20°03.20'S	20°06.40'S	18:30:37	74.7	0.79	2.25
148°00.0'W	17°44.15'S	17°44.93'S	18:29:59	19°48.52'S	19°51.76'S	18:31:57	75.4	0.80	2.26
147°00.0'W	17°29.35'S	17°30.14'S	18:31:23	19°34.68'S	19°37.93'S	18:33:22	76.3	0.81	2.27
146°00.0'W	17°15.45'S	17°16.21'S	18:32:52	19°21.74'S	19°24.96'S	18:34:52	77.2	0.82	2.28
145°00.0'W	17°02.51'S	17°03.20'S	18:34:25	19°09.74'S	19°12.89'S	18:36:26	78.1	0.83	2.29
144°00.0'W	16°50.59'S	16°51.16'S	18:36:03	18°58.74'S	19°01.77'S	18:38:05	79.1	0.84	2.30
143°00.0'W	16°39.71'S	16°40.13'S	18:37:46	18°48.81'S	18°51.69'S	18:39:50	80.1	0.85	2.32
142°00.0'W	16°29.77'S	16°30.18'S	18:39:34	18°39.96'S	18°42.67'S	18:41:39	81.2	0.86	2.33
141°00.0'W	16°20.86'S	16°21.36'S	18:41:27	18°32.28'S	18°34.73'S	18:43:34	82.4	0.87	2.34
140°00.0'W	16°13.18'S	16°13.78'S	18:43:25	18°25.82'S	18°28.03'S	18:45:33	83.6	0.88	2.35
139°00.0'W	16°06.77'S	16°07.45'S	18:45:28	18°20.61'S	18°23.03'S	18:47:38	84.9	0.89	2.36
138°00.0'W	16°01.74'S	16°02.43'S	18:47:36	18°16.68'S	18°19.32'S	18:49:48	86.2	0.90	2.38
137°00.0'W	15°58.04'S	15°58.77'S	18:49:49	18°14.15'S	18°16.99'S	18:52:03	87.6	0.91	2.39
136°00.0'W	15°55.61'S	15°56.54'S	18:52:08	18°12.96'S	18°14.82'S	18:54:23	89.1	0.92	2.40
135°00.0'W	15°55.81'S	15°56.09'S	18:54:31	18°13.54'S	18°16.49'S	18:56:48	90.6	0.93	2.41
134°00.0'W	15°55.53'S	15°56.72'S	18:56:59	18°15.57'S	18°18.44'S	18:59:19	92.2	0.94	2.42
133°00.0'W	15°58.02'S	15°59.21'S	18:59:32	18°19.24'S	18°21.93'S	19:01:54	93.9	0.95	2.42
132°00.0'W	16°02.29'S	16°03.36'S	19:02:09	18°24.57'S	18°27.52'S	19:04:33	95.6	0.95	2.43
131°00.0'W	16°08.28'S	16°09.21'S	19:04:52	18°31.58'S	18°34.80'S	19:07:17	97.3	0.95	2.44
130°00.0'W	16°16.01'S	16°16.84'S	19:07:38	18°40.38'S	18°43.95'S	19:10:06	99.1	0.96	2.44
129°00.0'W	16°25.55'S	16°26.28'S	19:10:29	18°51.02'S	18°54.92'S	19:12:58	100.9	0.96	2.44
128°00.0'W	16°36.91'S	16°37.58'S	19:13:23	19°03.53'S	19°07.62'S	19:15:54	102.7	0.96	2.44
127°00.0'W	16°50.20'S	16°50.77'S	19:16:21	19°17.94'S	19°22.10'S	19:18:53	104.5	0.95	2.43
126°00.0'W	17°05.12'S	17°05.87'S	19:19:22	19°34.26'S	19°38.35'S	19:21:56	106.3	0.95	2.43
125°00.0'W	17°22.01'S	17°22.90'S	19:22:27	19°52.51'S	19°56.40'S	19:25:00	108.1	0.94	2.42
124°00.0'W	17°40.80'S	17°41.87'S	19:25:33	20°12.62'S	20°16.23'S	19:28:07	109.9	0.94	2.41
123°00.0'W	18°01.62'S	18°02.76'S	19:28:41	20°34.70'S	20°37.87'S	19:31:15	111.6	0.93	2.40
122°00.0'W	18°24.48'S	18°25.59'S	19:31:51	20°58.66'S	21°01.48'S	19:34:24	113.3	0.92	2.39
121°00.0'W	18°49.35'S	18°50.31'S	19:35:02	21°24.46'S	21°27.01'S	19:37:33	115.0	0.90	2.37
120°00.0'W	19°16.03'S	19°16.88'S	19:38:13	21°52.05'S	21°54.29'S	19:40:42	116.5	0.89	2.36

# TOTAL SOLAR ECLIPSE OF 2010 JULY 11

## TABLE 2.C – MAPPING COORDINATES FOR THE ZONES OF GRAZING ECLIPSE

$\Delta T = 66.2 \text{ s}$									
Longitude	North Graze Zone		Northern	South Graze Zone		Southern	Path Azm °	Elev Fact	Scale Fact km/''
	Latitudes		Limit	Latitudes		Limit			
	Northern Limit	Southern Limit	Universal Time h m s	Northern Limit	Southern Limit	Universal Time h m s			
119°00.0'W	19°44.33'S	19°45.25'S	19:41:24	22°21.36'S	22°23.86'S	19:43:50	118.0	0.88	2.34
118°00.0'W	20°14.28'S	20°15.35'S	19:44:35	22°52.31'S	22°54.97'S	19:46:57	119.3	0.86	2.33
117°00.0'W	20°45.98'S	20°47.11'S	19:47:43	23°24.80'S	23°27.60'S	19:50:02	120.7	0.85	2.31
116°00.0'W	21°19.32'S	21°20.43'S	19:50:50	23°58.76'S	24°01.57'S	19:53:04	121.8	0.83	2.29
115°00.0'W	21°54.18'S	21°55.22'S	19:53:55	24°34.06'S	24°36.83'S	19:56:03	123.0	0.82	2.28
114°00.0'W	22°30.45'S	22°31.37'S	19:56:56	25°10.59'S	25°13.28'S	19:58:59	124.0	0.80	2.26
113°00.0'W	23°07.99'S	23°08.77'S	19:59:54	25°48.24'S	25°50.82'S	20:01:50	124.9	0.79	2.24
112°00.0'W	23°46.68'S	23°47.29'S	20:02:47	26°26.88'S	26°29.34'S	20:04:37	125.8	0.77	2.23
111°00.0'W	24°26.37'S	24°26.81'S	20:05:37	27°06.39'S	27°08.71'S	20:07:19	126.5	0.76	2.21
110°00.0'W	25°06.87'S	25°07.21'S	20:08:21	27°46.64'S	27°48.84'S	20:09:56	127.2	0.75	2.20
109°00.0'W	25°48.01'S	25°48.36'S	20:11:00	28°27.52'S	28°29.62'S	20:12:27	127.8	0.74	2.19
108°00.0'W	26°29.67'S	26°30.13'S	20:13:34	29°08.89'S	29°10.96'S	20:14:53	128.3	0.72	2.17
107°00.0'W	27°11.93'S	27°12.42'S	20:16:03	29°50.70'S	29°52.78'S	20:17:13	128.7	0.71	2.16
106°00.0'W	27°54.60'S	27°55.12'S	20:18:25	30°32.80'S	30°34.90'S	20:19:27	129.1	0.70	2.15
105°00.0'W	28°37.58'S	28°38.11'S	20:20:42	31°15.11'S	31°17.22'S	20:21:35	129.4	0.70	2.15
104°00.0'W	29°20.76'S	29°21.30'S	20:22:52	31°57.53'S	31°59.64'S	20:23:38	129.7	0.69	2.14
103°00.0'W	30°04.04'S	30°04.59'S	20:24:57	32°39.98'S	32°42.09'S	20:25:34	129.9	0.68	2.13
102°00.0'W	30°47.35'S	30°47.90'S	20:26:56	33°22.38'S	33°24.49'S	20:27:25	130.1	0.67	2.12
101°00.0'W	31°30.59'S	31°31.14'S	20:28:48	34°04.67'S	34°06.78'S	20:29:09	130.3	0.67	2.12
100°00.0'W	32°13.71'S	32°14.26'S	20:30:35	34°46.78'S	34°48.88'S	20:30:48	130.4	0.66	2.11
099°00.0'W	32°56.63'S	32°57.17'S	20:32:16	35°28.65'S	35°30.74'S	20:32:22	130.4	0.66	2.11
098°00.0'W	33°39.31'S	33°39.84'S	20:33:52	36°10.25'S	36°12.32'S	20:33:50	130.5	0.65	2.10
097°00.0'W	34°21.69'S	34°22.20'S	20:35:22	36°51.51'S	36°53.63'S	20:35:13	130.5	0.65	2.10
096°00.0'W	35°03.69'S	35°04.21'S	20:36:46	37°32.49'S	37°34.65'S	20:36:30	130.5	0.65	2.10
095°00.0'W	35°45.35'S	35°45.84'S	20:38:06	38°13.00'S	38°15.23'S	20:37:43	130.4	0.65	2.10
094°00.0'W	36°26.60'S	36°27.04'S	20:39:20	38°53.08'S	38°55.39'S	20:38:51	130.4	0.65	2.10
093°00.0'W	37°07.35'S	37°07.80'S	20:40:30	39°32.70'S	39°35.09'S	20:39:54	130.3	0.64	2.09
092°00.0'W	37°47.52'S	37°48.08'S	20:41:34	40°11.86'S	40°14.31'S	20:40:53	130.2	0.64	2.09
091°00.0'W	38°27.21'S	38°27.87'S	20:42:35	40°50.52'S	40°53.05'S	20:41:48	130.1	0.64	2.09
090°00.0'W	39°06.39'S	39°07.15'S	20:43:31	41°28.68'S	41°31.27'S	20:42:38	130.0	0.64	2.09
089°00.0'W	39°45.04'S	39°45.90'S	20:44:22	42°06.32'S	42°08.96'S	20:43:25	129.9	0.64	2.09
088°00.0'W	40°23.17'S	40°24.11'S	20:45:10	42°43.43'S	42°46.13'S	20:44:08	129.8	0.64	2.09
087°00.0'W	41°00.76'S	41°01.77'S	20:45:54	43°20.01'S	43°22.75'S	20:44:47	129.6	0.65	2.10
086°00.0'W	41°37.81'S	41°38.88'S	20:46:34	43°56.04'S	43°58.82'S	20:45:23	129.5	0.65	2.10
085°00.0'W	42°14.31'S	42°15.43'S	20:47:11	44°31.53'S	44°34.34'S	20:45:56	129.3	0.65	2.10
084°00.0'W	42°50.25'S	42°51.41'S	20:47:45	45°06.47'S	45°09.31'S	20:46:25	129.2	0.65	2.10
083°00.0'W	43°25.65'S	43°26.83'S	20:48:15	45°40.86'S	45°43.71'S	20:46:52	129.0	0.65	2.10
082°00.0'W	44°00.49'S	44°01.69'S	20:48:42	46°14.70'S	46°17.56'S	20:47:15	128.8	0.65	2.10
081°00.0'W	44°34.79'S	44°35.97'S	20:49:06	46°47.98'S	46°50.85'S	20:47:36	128.6	0.65	2.10
080°00.0'W	45°08.56'S	45°09.70'S	20:49:28	47°20.72'S	47°23.59'S	20:47:54	128.4	0.66	2.11
079°00.0'W	45°41.80'S	45°42.86'S	20:49:47	47°52.92'S	47°55.77'S	20:48:10	128.2	0.66	2.11
078°00.0'W	46°15.86'S	46°15.86'S	20:50:03	48°24.56'S	48°27.41'S	20:48:24	128.0	0.66	2.11
077°00.0'W	46°47.89'S	46°47.89'S	20:50:17	48°55.67'S	48°58.50'S	20:48:35	127.8	0.66	2.11
076°00.0'W	47°19.36'S	47°19.36'S	20:50:29	49°26.24'S	49°29.06'S	20:48:44	127.6	0.67	2.12
075°00.0'W	47°50.27'S	47°50.27'S	20:50:38	49°56.27'S	49°59.08'S	20:48:51	127.4	0.68	2.13
074°00.0'W	48°20.64'S	48°20.64'S	20:50:46	50°25.77'S	50°28.57'S	20:48:57	127.0	0.73	2.18
073°00.0'W	48°50.47'S	48°50.47'S	20:50:51	50°54.76'S	50°57.57'S	20:48:59	127.0	0.66	2.11