

TABLE 3.7
LOCAL CIRCUMSTANCES FOR PACIFIC OCEAN & SOUTH AMERICA
TOTAL SOLAR ECLIPSE OF 2010 JULY 11

Location Name	Latitude	Longitude	Elev. m	First Contact			Second Contact			Third Contact			Fourth Contact			Maximum Eclipse				Eclip. Mag.	Eclip. Obs.	Umbral Depth	Umbral Durat.								
				U.T.	P	V Alt	U.T.	P	V	U.T.	P	V	U.T.	P	V Alt	U.T.	P	V Alt	Azm												
				h	m	s	°	'	°	h	m	s	°	'	°	h	m	s	°	'	°	h	m	s	°	'	°				
PACIFIC OCEAN																															
COOK ISLANDS																															
Mangaia Is.	21°55'S	157°55'W	—	17:15:06.6	276	30	1	18:19:27.3	105	226	18:22:45.4	269	30	19:36:50.8	98	230	28	18:21:06.0	7	128	14	59	1.048	1.000	0.856	03m18s					
Mauke Is.	20°09'S	157°23'W	—	17:13:48.5	274	26	1	—	—	—	—	—	19:36:03.4	101	231	29	18:19:57.8	187	306	15	59	0.988	0.991								
Rarotonga Is.	21°14'S	159°46'W	—	—	—	—	—	—	—	—	—	—	19:32:53.5	100	229	26	18:18:39.5	186	305	12	60	0.993	0.996								
FIJI																															
Lautoka	17°37'S	177°27'E	—	—	—	—	—	—	—	—	—	—	19:01:53.4	116	227	4	18:43	Rise	—	—	0	67	0.286	0.178							
Suva	18°08'S	178°25'E	6	—	—	—	—	—	—	—	—	—	19:03:19.0	115	226	5	18:40	Rise	—	—	0	67	0.351	0.239							
FRENCH POLYNESIA																															
Bora-Bora	16°30'S	151°45'W	—	17:13:51.2	272	23	7	—	—	—	—	—	19:43:56.2	105	238	37	18:23:24.0	188	307	22	57	0.941	0.937								
Moorea Is.	17°32'S	149°40'W	—	17:15:53.4	274	28	9	—	—	—	—	—	19:49:49.8	103	241	39	18:27:14.0	188	310	24	55	0.983	0.987								
Papeete, Tahiti	17°32'S	149°34'W	2	17:15:57.6	274	28	9	—	—	—	—	—	19:50:04.1	103	241	39	18:27:22.9	188	311	24	55	0.984	0.987								
Rikitea	23°08'S	134°57'W	—	17:39:16.0	289	58	23	—	—	—	—	—	20:33:32.3	100	270	44	19:02:09.3	14	159	36	36	0.887	0.869								
Hikueru	17°35'S	142°39'W	2	17:22:14.1	278	35	16	18:37:08.7	95	224	18:41:28.4	286	55	20:07:50.6	104	253	45	18:39:18.0	191	319	31	49	1.054	1.000	0.910	04m20s					
Tatakoto	17°22'S	138°26'W	2	17:27:13.0	280	40	21	18:45:37.7	112	245	18:50:12.4	273	47	20:19:26.6	106	264	48	18:47:54.6	12	146	36	45	1.055	1.000	0.835	04m35s					
SAMOA, WESTERN																															
Apia	13°50'S	171°44'W	—	—	—	—	—	—	—	—	—	—	19:06:45.0	116	228	16	18:05:50.7	185	290	3	67	0.664	0.588								
TONGA																															
Nuku'alofa	21°08'S	175°12'W	—	—	—	—	—	—	—	—	—	—	19:12:35.6	106	224	11	18:20	Rise	—	—	0	67	0.768	0.716							
EASTER ISLAND (ISLA DE PASCUA, CHILE)																															
Hanga Roa	27°09'S	109°26'W	—	18:40:35.9	293	101	40	20:08:30.0	129	322	20:13:10.9	282	116	21:34:16.3	116	330	32	20:10:50.6	25	219	40	346	1.056	1.000	0.767	04m41s					
GALAPAGOS ISLANDS (ECUADOR)																															
Isla Santa Cruz	00°38'S	090°23'W	—	20:07:57.9	221	97	53	—	—	—	—	—	20:39:40.7	198	82	46	20:23:55.4	209	90	50	306	0.020	0.003								
SOUTH AMERICA																															
ARGENTINA																															
Buenos Aires	34°36'S	058°27'W	27	20:13:43.8	260	128	7	—	—	—	—	—	—	—	—	—	20:57	Set	—	—	0	297	0.446	0.336							
Córdoba	31°24'S	064°11'W	—	20:11:52.8	260	128	13	—	—	—	—	—	—	—	—	—	21:04:11.5	204	78	4	299	0.438	0.329								
El Calafate	50°20'S	072°15'W	—	19:44:15.1	292	138	9	20:48:30.1	118	331	20:51:17.1	286	140	—	—	—	20:49:53.8	22	235	1	308	1.045	1.000	0.902	02m47s						
La Plata	34°55'S	057°57'W	—	20:13:44.6	260	129	7	—	—	—	—	—	—	—	—	—	20:55	Set	—	—	0	297	0.437	0.327							
Lomas de Zamora	34°46'S	058°24'W	—	20:13:31.5	261	129	7	—	—	—	—	—	—	—	—	—	20:57	Set	—	—	0	297	0.448	0.338							
Mar del Plata	38°00'S	057°33'W	—	20:09:36.2	266	131	6	—	—	—	—	—	—	—	—	—	20:45	Set	—	—	0	298	0.452	0.343							
Mendoza	32°53'S	068°49'W	800	20:03:39.3	267	130	17	—	—	—	—	—	—	—	—	—	21:01:56.8	204	75	7	302	0.542	0.444								
Rosario	32°57'S	060°40'W	—	20:13:52.7	259	128	10	—	—	—	—	—	—	—	—	—	21:04:48.9	204	77	1	297	0.438	0.329								
San Miguel de T*	26°49'S	065°13'W	—	20:17:46.1	252	124	16	—	—	—	—	—	—	—	—	—	21:04:26.8	205	82	7	299	0.319	0.209								
BOLIVIA																															
La Paz	16°30'S	068°09'W	3658	20:39:13.3	226	108	20	—	—	—	—	—	21:22:52.5	186	73	10	21:01:23.3	206	91	15	299	0.061	0.018								
BRAZIL																															
Jardim	21°28'S	056°09'W	—	20:50:53.5	220	105	5	—	—	—	—	—	—	—	—	—	21:06:58.9	204	90	2	294	0.039	0.009								
Porto Alegre	30°04'S	051°11'W	10	20:29:31.6	243	120	2	—	—	—	—	—	—	—	—	—	20:39	Set	—	—	0	295	0.096	0.036							
CHILE																															
Concepción	36°50'S	073°03'W	—	19:53:54.7	277	133	18	—	—	—	—	—	—	—	—	—	20:58:25.7	204	69	8	306	0.707	0.641								
Santiago	33°27'S	070°40'W	—	20:00:24.7	270	131	18	—	—	—	—	—	—	—	—	—	21:00:51.8	205	74	8	303	0.583	0.492								
Valparaíso	33°02'S	071°38'W	41	19:59:27.0	270	130	19	—	—	—	—	—	—	—	—	—	21:00:27.3	205	74	9	304	0.585	0.494								
PARAGUAY																															
Asuncion	25°16'S	057°40'W	139	20:33:13.2	238	117	8	—	—	—	—	—	—	—	—	—	21:06:47.6	204	86	1	295	0.173	0.085								
PERU																															
Lima	12°03'S	077°03'W	120	20:24:15.3	231	110	32	—	—	—	—	—	21:18:56.8	184	71	21	20:52:11.9	208	91	27	302	0.081	0.028								
URUGUAY																															
Montevideo	34°53'S	056°11'W	22	20:15:29.2	259	128	5	—	—	—	—	—	—	—	—	—	20:48	Set	—	—	0	297	0.368	0.256							