

ASTRONOMICAL PHENOMENA

FOR THE YEAR

1857.

ECLIPSES.

In the year 1857, there will be Two Eclipses, both of the Sun.

I.—A Total Eclipse of the Sun, March 25th, 1857, invisible at Greenwich and St. John's.

Begins on the Earth generally, March 25th, at 7h 50m 0s mean time at Greenwich, in Longitude 155° 18' East of Greenwich, and Latitude 32° 31' South.

Central Eclipse begins generally March 25th, at 8h 46m 0s, in Longitude 141° 18' East of Greenwich, and Latitude 34° 19' South.

Central Eclipse at noon, March 25th, at 10h 24m 0s, in Longitude 154° 32' West of Greenwich, and Latitude 3° 49' South.

Central Eclipse ends generally, March 25th, at 12h 12m 3s in Longitude 90° 41' West of Greenwich, and Latitude 24° 0' North.

Ends on the Earth generally, March 25th, 13h 8m 3s, in Longitude 104° 36' West of Greenwich, and Latitude 25° 50' North.

LINE OF CENTRAL AND TOTAL ECLIPSE.

Longitude.	Latitude.	Longitude.	Latitude.
141 18 E	34 19 S	150 44 W	0 32 N
151 22	33 35	145 26	6 7
159 39	32 17	139 20	11 24
167 27	30 24	132 29	15 51
167 58 E	26 56	123 47	19 46
174 6 W	22 8	114 41	22 16
167 14	17 0	107 23	23 26
161 10	11 15	99 45	24 1
155 55 W	5 25 S	90 41 W	24 0 N

NORTHERN LINE OF SIMPLE CONTACT.

Longitude.	Latitude.	Longitude.	Latitude.	Longitude.	Latitude.
137 23 E	2 14 S	176 16 E	10 31 N	144 19 W	45 36 N
148 44	1 15	177 30 W	16 13	135 45	49 18
153 45	0 17 S	172 8	21 59	125 32	52 22
159 15	1 16 N	166 48	27 56	115 42	54 18
165 15	3 37	160 41	34 8	106 30	55 25
170 37 E	6 30 N	152 33 W	40 42 N	85 52 W	55 59 N

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