

SOUTHERN LINE OF SIMPLE CONTACT.

Long.	Lat.	Long.	Lat.	Long.	Lat.
139 28 E	68 8 S	148 40 W	45 14 S	117 43 W	16 9 S
160 53	66 11	142 47	39 35	112 20	13 37
174 7 E	63 40	137 45	34 7	106 16	11 44
174 22 W	60 14	132 38	28 27	100 32	10 39
163 50	55 39	127 59	23 45	94 45	10 6
155 42 W	50 46 S	123 2 W	19 35 S	86 17 W	10 6 S

ECLIPSE BEGINS AT SUNSET.

Long.	Lat.	Long.	Lat.	Long.	Lat.
83 49 W	55 27 N	76 58 W	33 16 N	78 10 W	3 57 N
80 39	52 11	76 45	27 15	79 22	1 30 S
78 38	46 28	76 52	17 55	81 2	5 53
77 34 W	40 13 N	77 29 W	9 0 N	83 39 W	9 8 S

ECLIPSE ENDS AT SUN RISE.

Long.	Lat.	Long.	Lat.	Long.	Lat.
140 18 E	67 57 S	128 35 E	49 9 S	129 37 E	11 49 S
136 36	67 12	127 40	40 24	131 54	6 3
133 25	63 59	127 26	31 6	135 17 E	2 46 S
131 13	59 40	127 39	25 5		
129 34 E	54 17 S	128 22 E	18 6 S		

II.—An Annular Eclipse of the Sun, September 17th. 1857. Invisible at Greenwich and St. John's, Newfoundland.

Begins on the Earth generally, September 17th, at 14h 37m 4s mean time at Greenwich, in Longitude $47^{\circ} 49'$ East of Greenwich and Latitude $36^{\circ} 17'$ North.

Central Eclipse begins generally, September 17th, at 15h 42m 6s in Longitude $31^{\circ} 17'$ East of Greenwich, and Latitude $40^{\circ} 15'$ North.

Central Eclipse at noon, September 17th, at 17h 22m 9s in Longitude $97^{\circ} 48'$ East of Greenwich, and Latitude $14^{\circ} 34'$ North.

Central Eclipse ends generally, September 17th, at 19h 27m 5s in Longitude $166^{\circ} 1'$ East of Greenwich, and Latitude $18^{\circ} 14'$ South.

Ends on the Earth generally, September 17th, at 20h 32m 7s in Longitude $139^{\circ} 34'$ East of Greenwich, and Latitude $22^{\circ} 14'$ South.

The central and limiting lines of this Eclipse, in the annexed diagram, have been laid down from the following calculated position :—