

Eclipses, 1865.

In the year 1865 there will be *four Eclipses*—TWO of the SUN, and TWO of the MOON.

The 1st on April the 10th, a *partial Eclipse of the Moon*, visible in Newfoundland. If the sky happen to be clear and the weather favourable, this Eclipse will be an interesting phenomenon, as the Moon will be above our horizon during its continuance; for on this day, the Moon will rise 31 minutes past 6, p.m., at St. John's, and set 18 minutes past 5, a.m. next morning.

First contact with Penumbra, April 10th, at 10h 32m 0 p.m.	} Mean Time at St. John's
First contact with Shadow April 11th at 0h 14m 41s a.m.	
Middle of Eclipse at 1h 7m 17s a.m.	
Last contact with Shadow at 1h 59m 53s a.m.	
Last contact with Penumbra at 3h 42m 35s a.m.	

During these times the Moon will pass *vertically* from Longitude 31.46 W. of Greenwich to 107.8 W.; on the parallel of Latitude 9. S. 9

The 2nd on April 25th, a *total Eclipse of the Sun*, invisible in the Northern hemisphere, as it begins in Longitude 76.35 W. of Greenwich, and in Latitude 31.24 S., and ends in Longitude 18.30 E. of Greenwich, and in Latitude 4.25 S.

The 3rd on Oct. the 4th, a *partial Eclipse of the Moon*, visible in Newfoundland. At St. John's the Moon will rise at 39 minutes past 5, p.m., on the 4th; and will set 9 minutes past 6 a.m. on the 5th, so that the first contact of the Moon with the Earth's Penumbra cannot be seen in this Island:

Moon's first contact with Penumbra, October 4th, at 4h 55m 11s p.m.	} Mean Time at St. John's, N.E.
“ first contact with Shadow at 6h 8m 29s p.m.	
Middle of Eclipse at 7h 9m 11s p.m.	
Last contact with Shadow at 8h 9m 53s p.m.	
Last contact with Penumbra at 9h 23m 11s p.m.	

Moon's true altitude at St. John's at middle of Eclipse 15.19.

The Sun will set on the 4th at 40 minutes past 5, at St. John's; so that at the instant the Sun's lower limb touches the horizon in the West, the Moon's upper limb will be seen rising in the East; but as the Moon will be then in the Earth's Penumbra, she will afford but a faint dull light.

The 4th on October the 19th, an *annular Eclipse of the Sun*, visible as a partial one in Newfoundland:

Begins on the Earth generally Oct. 19th at 9h 54m 26s a.m.	} Mean Time at St. John's, N.E.
Central Eclipse begins generally at 11h 10m 2s a.m.	
Sun and Moon's conjunction in R. A. (central Eclipse) at 0h 32m 32s p.m.	
Central Eclipse ends generally at 32h 30m 2s p.m.	
Ends on the Earth generally at 3h 46m 8s p.m.	

The following are the elements of the Sun and Moon at the instant of conjunction.