

ECLIPSES, 1880.

In the year 1880 there will be four Eclipses of the SUN and two of the MOON.

I. A total eclipse of the SUN, January 12, invisible in Canada.

II. A total eclipse of the MOON, June 22d, visible as a partial eclipse in British Columbia.

III. An annular eclipse of the SUN, July 6—7, invisible in Canada.

IV. A partial eclipse of the SUN, December 1, invisible in Canada.

V. A total eclipse of the MOON, December 16, visible as a partial eclipse in the North West Territories and British Columbia.

First contact with the Penumbra, December 16, 0h. 31m. 5s.

First contact with the Shadow1 44 5

Beginning of total phase.....2 54 0

Middle of the eclipse2 38 8

Mean time at Greenwich.

At Montreal the Moon will rise at 4h. 26m., P.M.

VI. A partial eclipse of the SUN, December 31. Visible in the Eastern portion of the Dominion of Canada.

At Toronto the first contact is at 8.31, A.M.

At Quebec the eclipse begins before sunrise.

The greatest phase is at 8.18, A.M.

The last contact is at 9.20, A.M.

At Halifax the first contact is at 7.53, A.M.

Greatest phase at 8.54, A.M.

Last contact at 9.59, A.M.

POSITION OF PLANETS.—1880.

MARS. ♂

Evening star till 25th October, afterwards a Morning star.

VENUS. ♀

Morning star till 13th July, afterwards an Evening star.

JUPITER. ♃

Evening star till 16th March, afterwards a Morning Star.

SATURN. ♄

Evening star till 9th April; Morning star till 13th October, afterwards an Evening star.