

Partial Lunar Eclipse 1 January 2010

On the 1st of January 2010, we will be able to observe a partial lunar eclipse starting from 1:17 a.m. to 5:28 a.m. In general, lunar eclipse will occur when the Moon passes the Earth's shadow during full Moon as shown in diagram 1.

The eclipse will start at 1:17 a.m. that is when the Moon start passing the penumbral shadow of the Earth (P1). But most observers will not be able to visually detect the eclipse since penumbral shadow is less dark.

The eclipse can only be observed when the Moon start passing umbra (U1) at 2:53 a.m. until maximum phase at 3:24 a.m.. The Moon will totally leave the Earth's umbra shadow (U4) at 3:53 a.m. The eclipse will be lasting until 5:28 a.m. but couldn't be observed since it is at the penumbral (less dark shadow) phase.

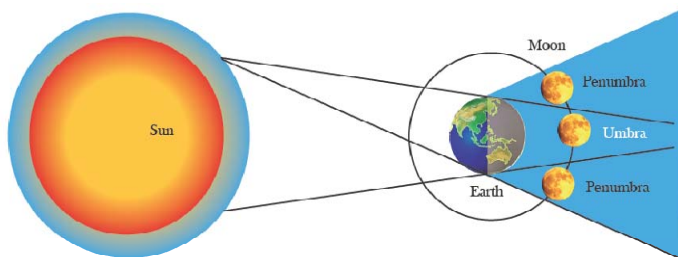


Diagram 1: Geometry of Lunar Eclipse

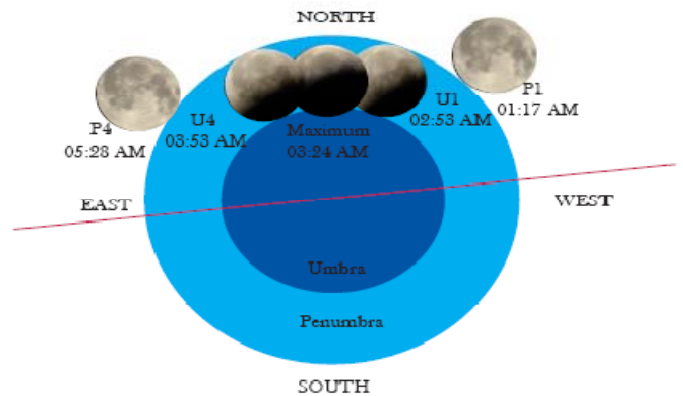


Diagram 2: Phases of Partial Lunar Eclipse 1 January 2010

The phases of partial lunar eclipse are shown in diagram 2 and its related explanation is listed in at table1.

Table 1 : Data on the Partial Lunar Eclipse on 1 January 2010

Phase	Remarks	Time
P1	Moon start passing "Penumbra"	01:17 a.m.
U1	Moon start passing " Umbra"	02:53 a.m.
Maksimum	Moon partially blocked by "Umbra"	03:24 a.m.
U4	Moon totally leaves "Umbra"	03:53 a.m.
P4	Moon start leaving "Penumbra"	05:28 a.m.

Note: Umbra – The darkest part of a shadow

Penumbra - The region in which only a portion of the occulting body is obscuring the light source