

# 2013 ECLIPSES

## Climate Data Processing Centre/PMD

There will be five eclipses, (two Solar & three Lunar) during the year 2013 A.D:

April 25 & 26 :	Partial Eclipse of Moon <b>(Visible In Pakistan)</b>
May 10 :	Annular Eclipse of Sun <b>(Not visible in Pakistan)</b>
May 25 :	Penumbral Eclipse of Moon <b>(Not visible in Pakistan)</b>
October 19 :	Penumbral Eclipse of Moon <b>(Not visible in Pakistan)</b>
November 3 :	Total Eclipse of Sun <b>(Not visible in Pakistan)</b>

The details of the eclipses are as follows:

**1. Partial Eclipse of Moon on Thu./Friday 25<sup>th</sup> And 26<sup>th</sup> April, 2013 (Visible in Pakistan)**

A partial eclipse will be visible from Africa, Europe and Asia (except the north east), Antarctica and Australia. Eastern parts of South America will be visible at the time of moonrise with the eclipse already in progress. It is partially visible in all part of Pakistan of mid night b/w 25<sup>th</sup> and 26<sup>th</sup> April, 2013.

Partial eclipse begins	00-54 PST (26 <sup>th</sup> April, 2013)
Greatest eclipse	01-09 PST (26 <sup>th</sup> April, 2013)
Partial eclipse ends	01-21 PST (26 <sup>th</sup> April, 2013)

Penumbral magnitude=0.9865

Umbral magnitude=0.0147

**2. Annular Eclipse of Sun on Friday 10<sup>th</sup> May, 2013 (Not visible in Pakistan)**

An annular eclipse will be visible from Australia, eastern Papua, New Guinea, The Solomon Island, and the Gilbert Islands. A partial eclipse is seen Australia, Indonesia, Oceania and much of the central the pacific Ocean.

Eclipse begins	02-25 PST
Annular phase begins	03-32 PST
Greatest Eclipse	05-25 PST
Annular phase ends	07-18 PST
Eclipse ends	08-25 PST

Eclipse magnitude=0.9544

**3. Penumbral Eclipse of Moon on Saturday 25<sup>th</sup> May, 2013. (Not visible in Pakistan)**

It will be only visible from the Americas and western Africa. It will not be visible by naked eye.

Penumbral eclipse begins	08-53 PST
Greatest eclipse	09-11 PST
Penumbral eclipse ends	09-22 PST

**4. Penumbral Eclipse of Moon on Saturday 19<sup>th</sup> October, 2013 (Not visible in Pakistan)**

The last lunar eclipse of the year is deep penumbral eclipse with a magnitude of 0.7649. It will be visible from entire Europe and Africa. The entire event can also be seen from Eastern Canada while the rest of Canada and the USA can see at moonrise time.

Penumbral eclipse begins	02-51 PST
Greatest eclipse	04-51 PST
Penumbral eclipse ends	06-50 PST

**5. Total Eclipse of Sun on Sunday, 03<sup>rd</sup> November, 2013 (Not visible in Pakistan)**

It will be visible from North Atlantic and Equatorial Africa. A partial eclipse will be visible from North America, northern south America, Southern Europe, the Middle East and Africa.

Eclipse begins	15-05 PST
Total phase begin	16-05 PST
Greatest eclipse	17-48 PST
Total phase ends	19-28 PST
Eclipse ends	20-28 PST

Eclipse magnitude=1.0159