



## PARTIAL SOLAR ECLIPSE of 4 JANUARY 2011

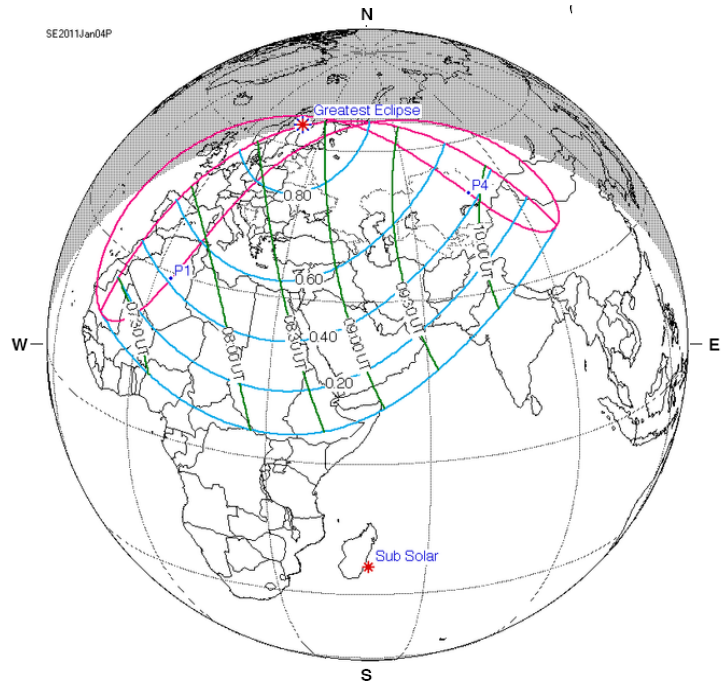
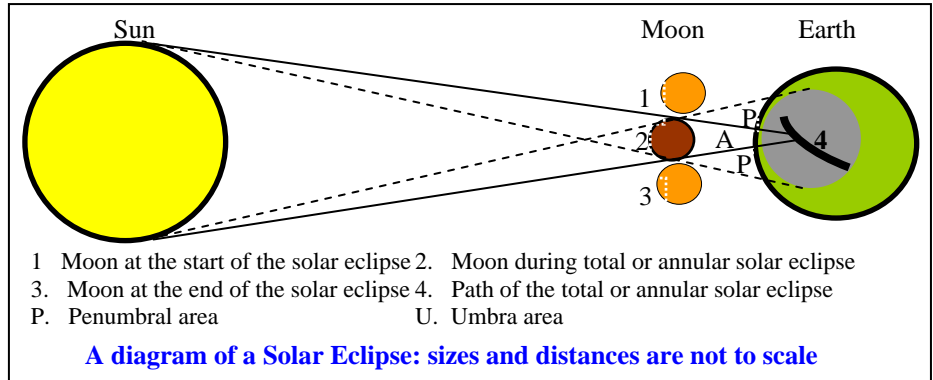
Eclipses can take place whenever Sun, Earth, and Moon are aligned in or nearly in a straight line. A lunar eclipse occurs when the full moon enters the Earth's Shadow as it orbits the earth. Lunar eclipses can be observed from all the areas that will fall into the night-time during the lunar eclipse. On the other hand, a solar eclipse occurs when new moon casts its shadow on the earth as it passes between the sun and the earth while it is orbiting the earth see the figures.

When Sun-Moon-Earth align in a straight line and the size of the apparent disk of the moon is same or greater that of the Sun, a total solar eclipse occurs. Annular solar eclipse occurs when the sun and the moon are in line, but the apparent size of the moon's disk is smaller than that of the visible disk of the sun., where only a ring of light will be visible from the sun surface rim. Otherwise it will be a partial solar eclipse when the those three celestial bodies do not align exactly in straight line.

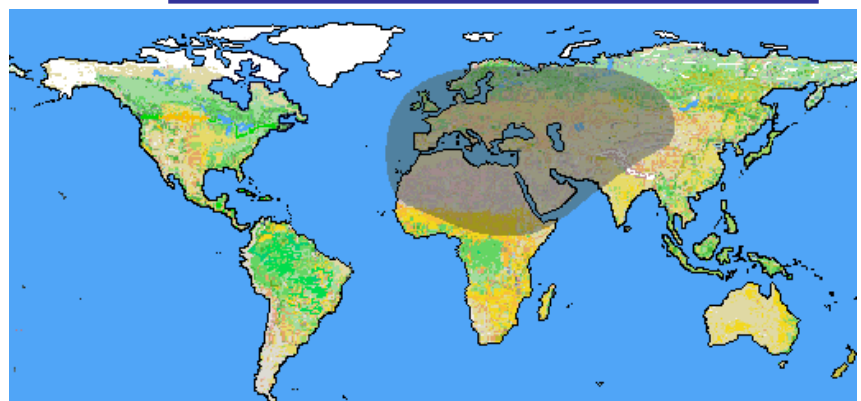
A partial solar eclipse is expected to take place on Tuesday 4 January 2011. It will be seen, starting at 6:40 AM (UT) from middle of Algiers (Longitude: 4.48 E, Latitude: 28.82N) around sunrise and continues till it ends at 11:01 AM (UT) on Eastern regions of Kazakhstan around sunset. The maximum eclipse magnitude (86%) will be seen in the extreme northern Europe. The maximum duration will be over three hours. It will be visible in all Europe, north and middle of Africa and western part of Asia, It will not be visible from the continents: Australia, North and South America, Arctic, southern Africa, and south and east of Asia, and the oceans: Pacific, Atlantic and Antarctic (See the Figure).

It is visible as a partial solar eclipse in all GCC countries. In areas where the magnitude of the partial eclipse is less than 10% may not be that noticeable, but **please DO NOT look directly at the Sun at any time, its light may damage your eyes or even causes blindness no matter how small it is.**

**WARNING: People who do not take adequate safety measures could severely damage their eyes without realizing it and may lead to a permanent damage to their sight or a total blindness. Avoid using non-approved solar filter such as sunglasses (regular, tinted, or darken glasses), smoked glasses, or**



A geographical (global) map showing the partial eclipse path of 4 January 2011 that starts on middle of Algiers in the north west of Africa and ends in east of Kazakhstan in the middle Asia.



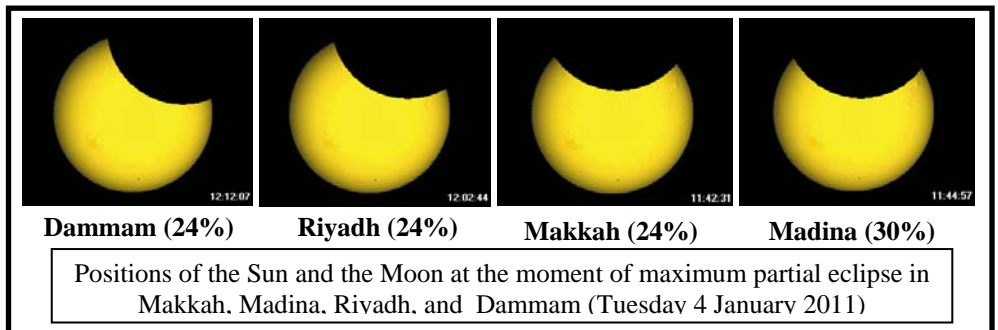
A geographical map showing areas where the partial eclipse of 4 January 2011 can be seen. It starts on the middle of Algiers in the north west of Africa and ends in east of Kazakhstan in the middle Asia. The Maximum eclipse magnitude will be in the extreme north of Europe

**photographic negatives for viewing annular or partial solar eclipses since they may not be able to block all the sun's harmful infrared rays. DO NOT USE ANY TYPE OF FILTERS UNLESS YOU ARE CERTAIN THAT THEY ARE SAFE AND APPROVED for viewing the sun. Some commercial solar filters, which come with cheap non-branded telescopes may not be safe either. Welders' goggles with a rating of 14 or higher may be safe to watch solar eclipses provided that they not damaged in any way. Remember, your eyes are too precious to put in risk of losing them no matter how small or slight is the chance. Any attempt by the children to watch the eclipse should be under supervision of their parents or a qualified adult. Please take care and watch your children.**

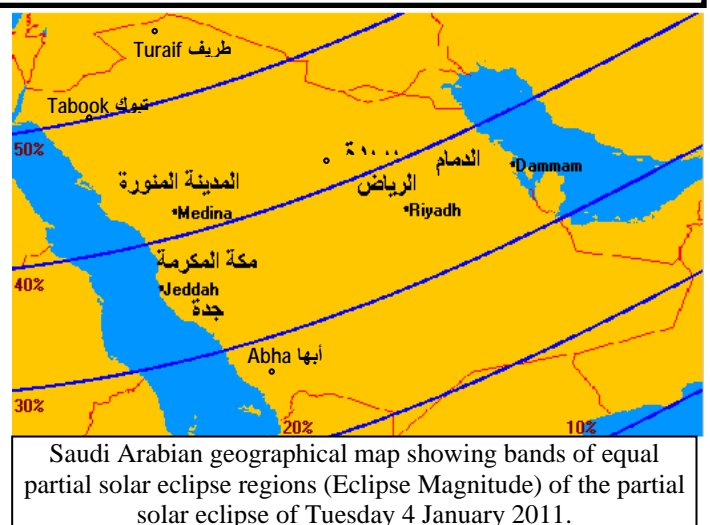
The following Table lists Circumstances for the annular solar eclipse occurrence on Tuesday 29 Muharram 1432 H (4 January 2011) which will be seen as partial solar eclipse in some major cities in Saudi Arabia and GCC countries.

S/N	Location	Start Time	Time of Max	Alt (deg)	Eclipse Mag	Area Covered	End Time
1	Makkah	10:20 am	11:43 am	45	36%	24%	1:07 pm
2	Madina	10:18 am	11:45 am	42	42 %	30 %	1:14 pm
3	Riyadh	10:39 am	12:03 pm	43	36 %	24 %	1:24 pm
4	Jeddah	10:18 am	11:41 am	44	36 %	24 %	1:06 pm
5	Dammam	10:49 am	12:12 pm	40	36 %	24 %	1:31 pm
6	Hufuf	10:48 am	12:10 pm	42	35 %	23 %	1:29 pm
7	Buraidah	10:30 am	11:58 am	41	42 %	30 %	1:24 pm
8	Tabouk	10:11 am	11:41 am	37	51 %	39 %	1:15 pm
9	Abha	10:32 am	11:48 am	48	27 %	16 %	1:02 pm
10	Kuwait	10:41 am	12:10 pm	38	44 %	31 %	1:34 pm
11	Muscat	12:26 am	1:29 pm	40	19 %	9 %	2:27 pm
12	Doha	10:55 am	12:14 pm	41	32 %	20 %	1:30 pm
13	Manama	10:51 am	12:13 pm	41	35 %	23 %	1:31 pm
14	Abu Dhabi	12:06 am	1:20 am	41	27 %	15 %	2:30 pm
15	Dubai	12:08 am	1:23 am	40	27 %	16 %	2:32 pm

Please note that the eclipsed area of the Sun is percentage of the area of the disk that is covered by the lunar disk, while eclipse magnitude is the percentage of the portion of the blocked diameter



Please remember that Eclipses or any other celestial phenomena are not related to life, death, or destiny or fate of a person. A solar eclipse coincided with the day of our Prophet – PBUH- son's Ibrahim death and people believed that it happened because of his death, but our Prophet – PBUH- said: (What the meaning is) Sun and Moon are Signs of Allah and they will be eclipsed for the death of the life of any person, if you see them make Duaa to Allah and pray till it is over. It may be an indirect sign of how dangerous is to watch solar eclipses which of course happen at day time when every one is awake and Allah has the knowledge. Therefore, please do not forget to observe the Eclipse prayer during the time of the eclipses as directed to us by our Prophet (ﷺ) –PBUH



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