

Total Solar Eclipse of Friday 01 August 2008



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Eclipses can take place whenever Sun, Earth, and Moon are aligned 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 nighttime 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 as show in the diagram.

A total solar eclipse is expected to take place on Friday 1 August 2008. The totality will be seen in some Arctic regions, northeast of Canada, Northeast of Greenland, middle of Russia including Siberia, west of Mongolia, and North West of China where it ends before reaching the costal region of China. The longest period of totality will be about two minutes and twenty seven seconds (2:27) such as in Nadym city in North Russia. The partial phase of the solar eclipse will be visible in: GCC countries (except west and south of Saudi Arabia), in most of Asia and Europe, northeast of North America, and North Arctic regions. It is not visible in far east of Asia such Japan, southeast countries of Asia, Australia, Africa, South America, most of North America (northeast region), and Antarctica regions. In areas where the magnitude of the partial eclipse is less than 10 to 12% may not to be that noticeable, but **please DO NOT look directly at the Sun at any time, its light may damage your eyes no matter how faint it is.**

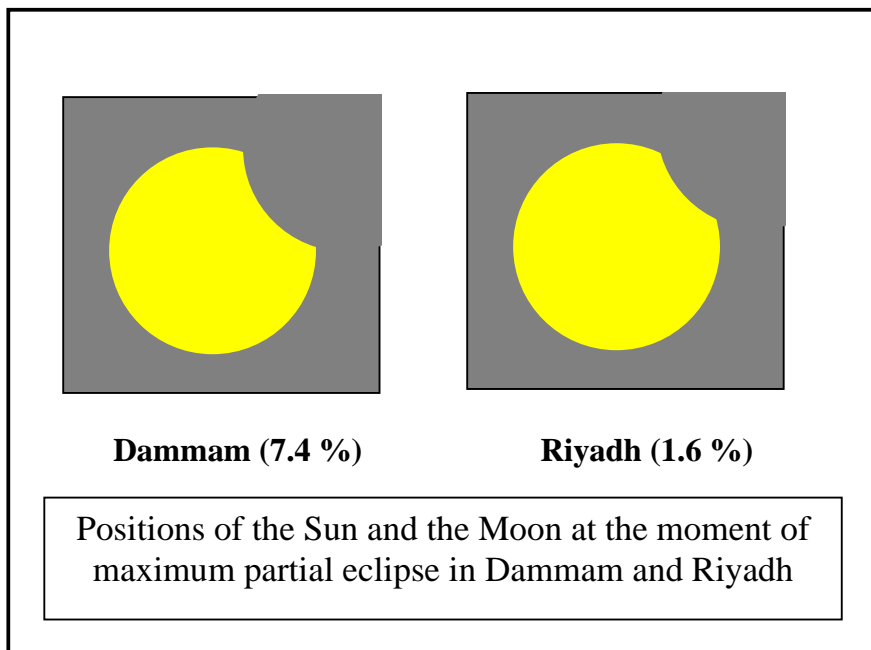
The following Table lists major cities in Saudi Arabia and GCC where the total solar eclipse of Friday 1 August 2008 will be partially visible

S/N	Location	Start Time	Alt (deg)	Time of Max	Alt (deg)	Eclipse Mag	Area Covered	End Time	Alt (deg)
1	Qurayat	13:33	71.5	13:52	68.3	2.8	0.6	2:38	64.7
2	Arar	13:26	70.4	13:59	64.4	8.6	3.0	14:31	58.0
3	Hail	13:51	66.9	14:08	63.3	2.3	0.4	14:25	57.6
4	Rafah	13:31	68.6	14:06	61.6	10.2	3.9	14:40	54.5
5	Buraidah	13:51	65.2	14:14	60.3	4.1	1.0	14:35	55.5
6	Majmaah	13:50	64.4	14:16	58.6	5.8	1.7	14:42	52.9
7	HafrAlBatin	13:34	66.5	14:12	58.6	12.3	5.1	14:47	50.8
8	Riyadh	13:55	62.3	14:21	56.5	5.7	1.6	14:45	50.9
9	Kharj	13:57	61.5	14:22	55.7	5.8	1.7	14:47	50.0
10	Khafji	13:32	64.6	14:15	55.4	17.2	8.4	14:56	46.5
11	Haradh	13:52	60.9	14:24	53.5	9.6	3.5	14:55	46.5
12	Hufuf	13:45	61.8	14:22	53.5	12.5	5.3	14:57	45.6
13	Abqaiq	13:42	62.3	14:21	53.6	14.0	6.2	14:58	45.4
14	Jubail	13:37	63.2	14:19	54.0	16.2	7.7	14:58	45.3
15	Qatif	13:39	62.5	14:20	53.5	15.8	7.4	14:59	44.8
16	Dammam	13:40	62.4	14:20	53.3	15.8	7.4	14:59	44.7
17	Dhahran	13:40	62.3	14:21	53.3	15.7	7.3	14:59	44.6
18	RasTannura	13:38	62.5	14:20	53.3	16.3	7.8	14:59	44.6
19	Kuwait	13:28	65.8	14:12	56.6	17.8	8.9	14:54	47.6
20	Manama	13:40	61.9	14:21	52.7	16.3	7.8	15:00	43.9
21	Doha	13:44	60.4	14:24	51.2	16.1	7.7	15:03	42.5
22	Abu Dhabi	14:45	57.7	15:28	47.8	19.6	10.2	16:09	38.4

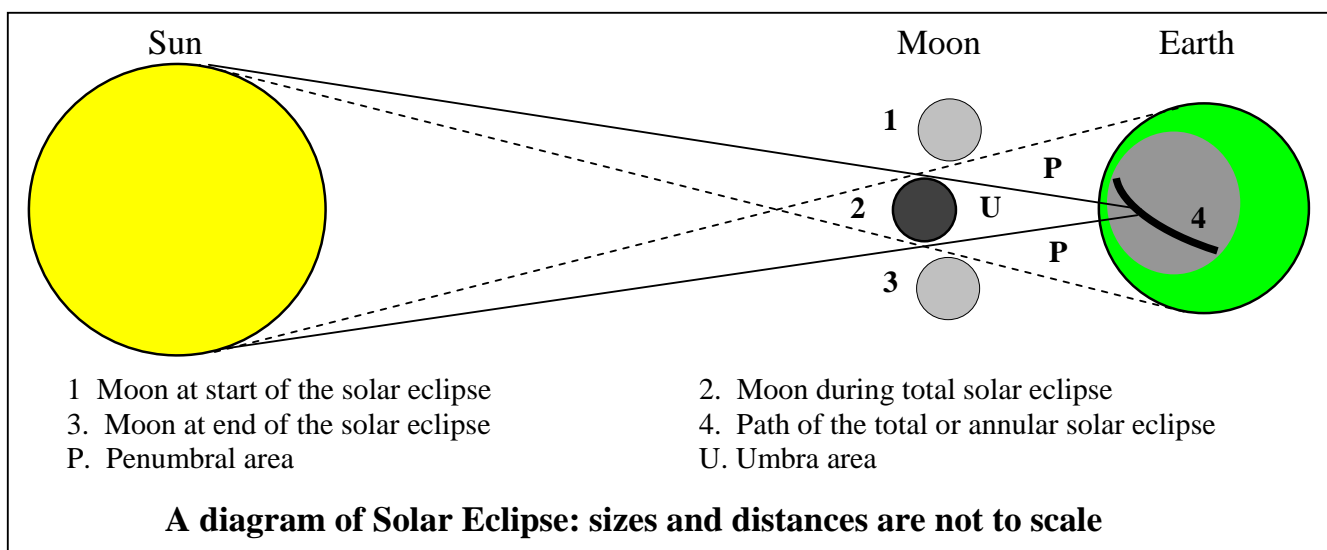
23	Dubai	14:41	57.6	15:28	47.1	22.7	12.6	16:11	37.4
24	Sharjah	14:41	57.6	15:28	47.0	23.1	13.0	16:11	37.2
25	Muscat	14:46	53.6	15:33	42.8	25.3	14.8	16:17	32.8

- Eclipse Mag: The percentage of the covered part of the diameter of the Sun's disk
- Alt: The altitude of the Sun above the horizon in degrees.
- Area covered: The percentage of the Solar disk covered by the Moon.
- All the times are given in local times, (GMT+1) or GMT+2).

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 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.



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 happed 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

Figure (1): Total Solar Eclipse of Friday 29/7/1429 H - 1 August 2008 (Visible as Partial Solar Eclipse in the East and Middle of Arabian Peninsula)

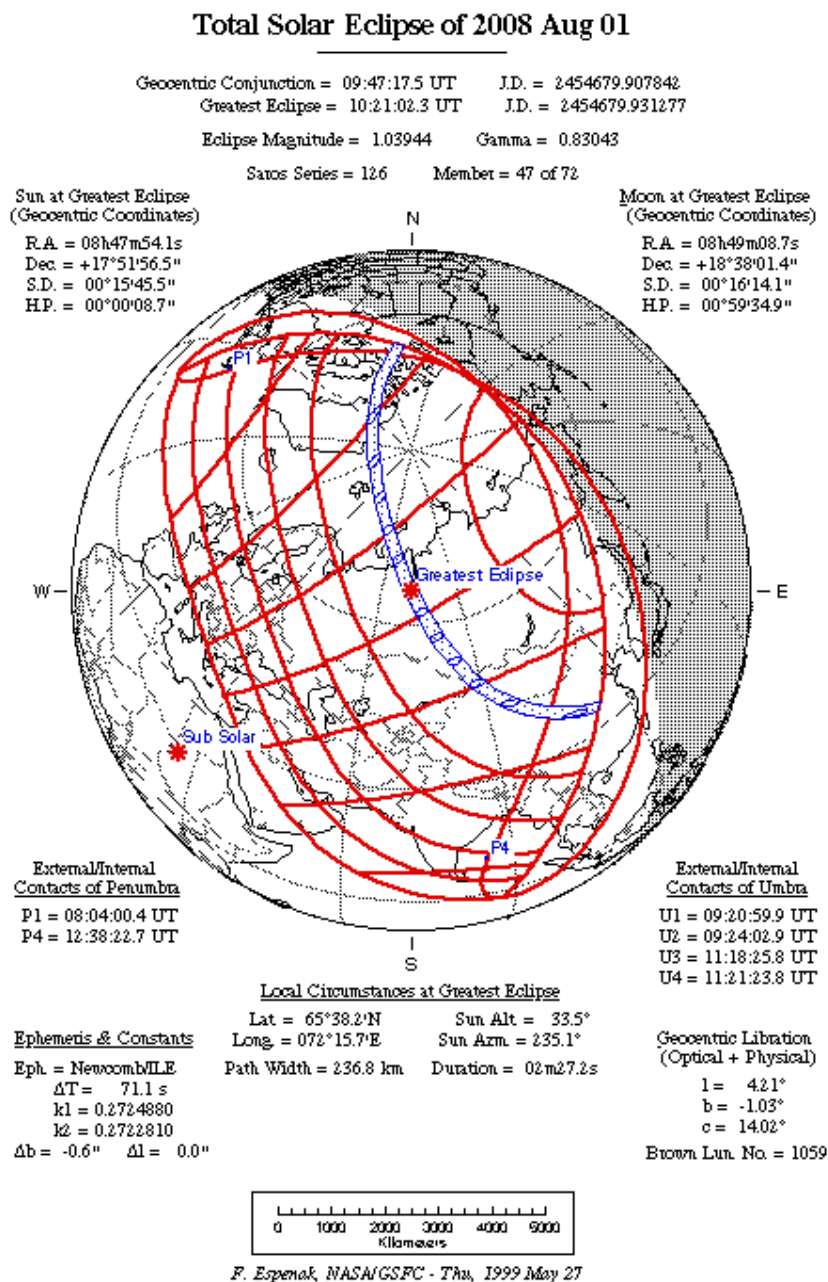
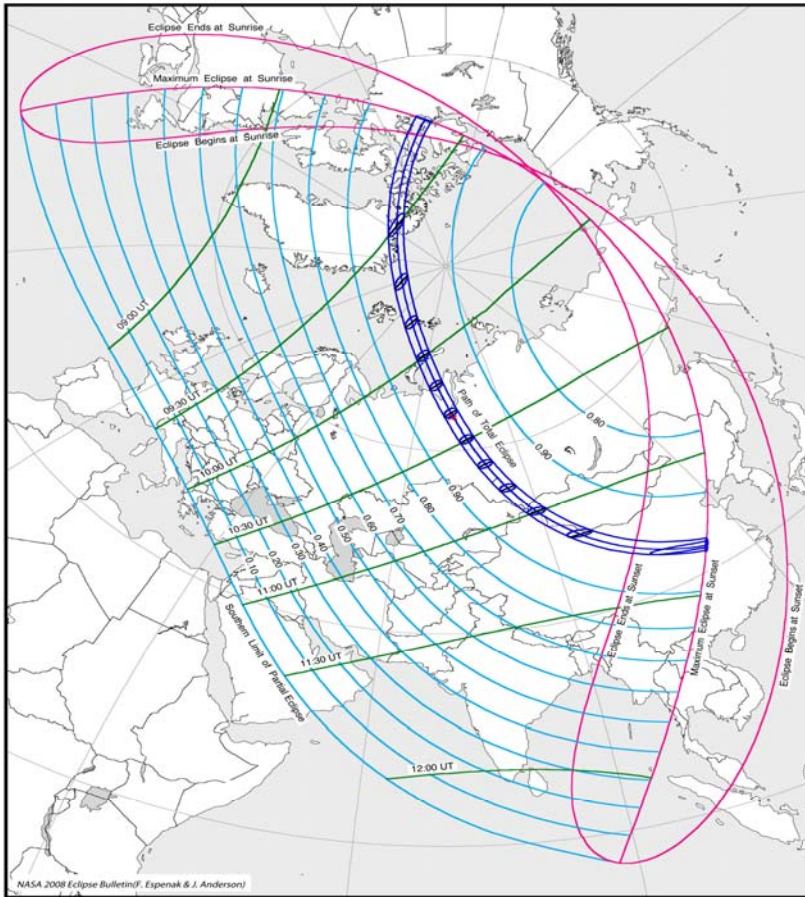


FIGURE 2: STEREOGRAPHIC PROJECTION MAP OF THE ECLIPSE
Total Solar Eclipse of 2008 August 01



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Eclipse maps are courtesy of Fred
 Espenak- NASA / Goddard Space
 Flight Center.

<http://sunearth.gsfc.nasa.gov/eclipse/e/eclipse.html>

Figure (3): Total Solar Eclipse of Friday 29/7/1429 H - 1 August 2008 (Visible as Partial Solar Eclipse in Eastern and Middle of the Arabian Peninsula) "Eclipse Predictions by Fred Espenak, NASA's GSFC"

