

Partial Eclipse of the Sun on 25th October, 2022, Tuesday 3 Kartika, 1944 Saka Era

Eclipsed Sun should not be viewed with the Naked Eye, Even for a very short time

Posted On: 18 OCT 2022 4:38PM by PIB Delhi

A partial eclipse of the Sun will occur on October 25, 2022 (3 Kartika, 1944 Saka Era). In India the eclipse will begin before sunset in the afternoon and will be seen from most of the places. However, the same cannot be seen from Andaman & Nicobar Islands and some parts of north-east India (name of few of such places are Aizawl, Dibrugarh, Imphal, Itanagar, Kohima, Sibsagar, Silchar, Tamelong etc.).

The ending of the eclipse will not be visible from India as the same will be in progress after sunset.

The obscuration of the Sun by the Moon will be approximately between 40 and 50 percent at the time of maximum eclipse in north-western parts of the country. In other parts of the country, the percentage coverage will be less than the above values.

In Delhi and Mumbai, the percentage coverage of the Sun by the Moon at the time of greatest eclipse will be around 44 percent and 24 percent respectively. The duration of eclipse from the beginning up to sunset time will be 1 hr 13 min and 1 hr 19 min for both Delhi and Mumbai respectively. In Chennai and Kolkata, the duration of the eclipse from the beginning up to sunset time will be 31 min and 12 min respectively.

The eclipse is visible in the region covering Europe, the Middle East, north-eastern parts of Africa, western Asia, the North Atlantic Ocean and the North Indian Ocean.

The next solar eclipse will be visible from India on August 2, 2027. It will be a total solar eclipse. From all parts of the country it will be seen as partial solar eclipse.

A solar eclipse occurs on a new moon day when the Moon comes in between the Earth and the Sun and when all the three objects are aligned. A partial solar eclipse will occur when the lunar disk covers the solar disk partially.

Eclipsed Sun should not be viewed with the naked eye, even for a very short time. It will cause permanent damage of the eyes leading to blindness even when the Moon covers most portion of the Sun. Safe technique to observe the solar eclipse is either by using proper filter like aluminized Mylar, black polymer, welding glass of shade number 14 or by making projection of Sun's image on a white board by telescope.

A table relating to local circumstances of some places in India is appended separately for ready reference.

LOCAL CIRCUMSTANCES OF THE PARTIAL PHASE RELATING TO CERTAIN PLACES IN INDIA

Places	P a r t i a l Eclipse Begins (IST)	Greatest Eclipse (IST)	Obscuration at the time of Greatest Eclipse	P a r t i a l Eclipse Ends (IST)	S u n s e t Time (IST)	Duration of the eclipse from the beginning and upto sunset time
	h m	h m			h m	h m
Agartala	16 50.5	*	--	*	16 51	0 00.5
Ahmedabad	16 38.5	17 37.1	33.6%	*	18 06	1 27.5
Ajmer	16 32.0	17 32.9	40.3%	*	17 55	1 23.0
Allahabad	16 40.6	*	--	*	17 27	0 46.4
Amritsar	16 20.1	17 24.8	50.9%	*	17 48	1 27.9
Bangalore	17 12.4	17 50.8	9.9%	*	17 56	0 43.6
Bhagalpur	16 44.7	*	--	*	17 07	0 22.3
Bhopal	16 42.4	17 38.2	32.1%	*	17 47	1 04.6
Bhubaneswar	16 56.7	*	--	*	17 16	0 19.3
Cannanore	17 14.4	17 51.7	8.7%	*	18 06	0 51.6
Chandigarh	16 23.5	17 26.5	49.1%	*	17 38	1 14.5
Chennai	17 14.5	*	--	*	17 45	0 30.5
Cochin	17 22.7	17 53.7	5.1%	*	18 04	0 41.3
Cooch Behar	16 43.6	*	--	*	16 56	0 12.4
Cuttack	16 56.2	*	--	*	17 16	0 19.8
Darjeeling	16 41.2	*	--	*	17 00	0 18.8
Dehradun	16 26.1	17 28.0	47.0%	*	17 37	1 10.9
Delhi	16 29.3	17 30.5	43.8%	*	17 42	1 12.7
Dwarka	16 36.5	17 36.6	33.1%	*	18 21	1 44.5
Gandhinagar	16 38.1	17 36.9	33.9%	*	18 06	1 27.9
Gangtok	16 40.7	*	--	*	16 58	0 17.3
Guwahati	16 45.2	*	--	*	16 47	0 01.8
Gaya	16 44.6	*	--	*	17 15	0 30.4
Haridwar	16 25.7	17 27.7	47.4%	*	17 36	1 10.3
Hazaribagh	16 46.8	*	--	*	17 14	0 27.2
Hubli	17 00.5	17 47.1	17.1%	*	18 02	1 01.5
Hyderabad	16 59.1	17 45.9	18.7%	*	17 48	0 48.9
Jaipur	16 32.2	17 32.7	40.6%	*	17 50	1 17.8
Jalandhar	16 20.3	17 24.6	51.3%	*	17 43	1 22.7
Jammu	16 17.7	17 23.1	52.9%	*	17 47	1 29.3

Kanyakumari	17 32.8	17 55.6	2.1%	*	18 00	0 27.2
Kavalur	17 14.0	*	--	*	17 49	0 35.0
Kavaratti	17 15.7	17 52.3	7.8%	*	18 16	1 00.3
Kolhapur	16 57.5	17 46.1	18.9%	*	18 06	1 08.5
Kolkata	16 52.3	*	--	*	17 04	0 11.7
Koraput	16 58.5	*	--	*	17 30	0 31.5
Kozikode	17 17.0	17 52.4	7.5%	*	18 05	0 48.0
Kurnool	17 03.6	17 47.8	15.4%	*	17 51	0 47.4
Lucknow	16 36.6	*	--	*	17 29	0 52.4
Madurai	17 24.6	17 53.9	4.4%	*	17 56	0 31.4
Mangalore	17 10.2	17 50.5	10.9%	*	18 07	0 56.8

“*” indicates phenomenon will not occur in that place.

PARTIAL SOLAR ECLIPSE, OCTOBER 25, 2022

LOCAL CIRCUMSTANCES OF THE PARTIAL PHASE RELATING TO CERTAIN PLACES IN INDIA

Places	Partial Eclipse Begins (IST)	Greatest Eclipse (IST)	Obscuration at the time of Greatest Eclipse	Partial Eclipse Ends (IST)	Sun set Time (IST)	Duration the ec from beginning upto su time
	h m	h m			h m	h m
Midnapore	16 52.0	*	--	*	17 08	0 16.0
Mount Abu	16 34.7	17 34.9	36.9%	*	18 04	1 29.3
Mumbai	16 49.8	17 42.9	24.3%	*	18 09	1 19.2
Murshidabad	16 47.9	*	--	*	17 01	0 13.1
Muzaffarpur	16 41.6	*	--	*	17 12	0 30.4
Mysore	17 14.0	17 51.4	9.0%	*	18 00	0 46.0
Nagpur	16 49.4	17 41.4	26.5%	*	17 42	0 52.6
Nalgonda	17 01.0	*	--	*	17 46	0 45.0
Nasik	16 47.7	17 41.7	26.4%	*	18 05	1 17.3
Nellore	17 09.5	*	--	*	17 45	0 35.5
Nowgong	16 39.7	17 36.2	35.1%	*	17 37	0 57.3
Panaji	17 00.3	17 47.2	17.0%	*	18 06	1 05.7
Patna	16 42.7	*	--	*	17 14	0 31.3
Pondicherry	17 18.2	*	--	*	17 48	0 29.8

Pune	16 51.9	17 43.7	23.1%	*	18 06	1 14.1
Puri	16 57.9	*	--	*	17 17	0 19.1
Raipur	16 51.2	*	--	*	17 32	0 40.8
Rajamundry	17 03.4	*	--	*	17 33	0 29.6
Rajkot	16 38.5	17 37.5	32.5%	*	18 14	1 35.5
Ranchi	16 48.4	*	--	*	17 15	0 26.6
Sambalpur	16 52.2	*	--	*	17 22	0 29.8
Shillong	16 46.7	*	--	*	16 47	0 00.3
Shimla	16 23.5	17 26.5	49.0%	*	17 39	1 15.5
Siliguri	16 42.1	*	--	*	17 00	0 17.9
Silvassa	16 45.7	17 40.9	27.7%	*	18 07	1 21.3
Srinagar	16 14.5	17 20.7	55.6%	*	17 45	1 30.5
Sringeri	17 08.1	17 49.8	12.2%	*	18 03	0 54.9
Thanjavur	17 21.9	*	--	*	17 52	0 30.1
Thiruvananthapuram	17 30.1	17 55.2	2.7%	*	18 02	0 31.9
Trichur	17 19.2	17 52.9	6.5%	*	18 02	0 42.8
Udaipur	16 35.7	17 35.3	36.5%	*	18 00	1 24.3
Ujjain	16 41.2	17 38.0	32.6%	*	17 53	1 11.8
Vadodara	16 41.0	17 38.4	31.7%	*	18 04	1 23.0
Varanasi	16 41.9	*	--	*	17 22	0 40.1
Vijayawada	17 03.5	*	--	*	17 40	0 36.5

“*” indicates phenomenon will not occur in that place.

SNC / RR

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