



Sun, Planets and Transitions

The **Sun** will be in Cancer, the Crab (*Karka*), on 1 August. Its angular diameter will be 31'30.9". On 11 August, the Sun will transit to Leo, the Lion (*Simha*). On 31 August, its angular diameter will be 31'41.1".

There will be a total solar eclipse on 12 August 2026. It will not be visible over India. Please see below.

Mercury will be in Gemini, the Twins (*Mithuna*), on 1 August. It moves to Cancer on 8 August. It can be seen in the Beehive cluster (*Pushya nakshatra*, an open cluster), on 14 August. The next day on 15 August around 4 pm IST, it passes by Jupiter at a distance of 33'. That same morning, Mercury can be seen above Jupiter. The next day, Jupiter takes over; and Mercury will be below and north of Jupiter.

Mercury will be in superior conjunction with the Sun on 27 August.

Ephemeris of Mercury:

Date	Alt*	Diam"	Mag	El°
01 Aug	+11°17'	7.9	0.4	19.4 W
10 Aug	+08°38'	6.2	-0.8	16.9 W

Venus will be in Leo at the stroke of midnight on 1 August and will move to Virgo, the Virgin (*Kanya*) a few hours later, where it will remain for the rest of the month.

Venus reaches its maximum western elongation of 45.9° E on 15 August.

Ephemeris of Venus:

Date	Alt*	Diam"	Mag	El°
01 Aug	+41°18'	21.0	-4.2	45.3 E
10 Aug	+38°41'	23.0	-4.3	45.8 E
20 Aug	+35°09'	25.9	-4.4	45.8 E
30 Aug	+31°03'	29.5	-4.4	44.9 E

List of Events in August 2026 (Time in IST)

Dt	Dy	Time	Event
02	Su	13:29	Mercury elongation: 19.5° W
04	Tu	04:07	Moon 6.2° N of Saturn
06	Th	07:51	Last quarter
07	Fr	11:53	Moon-Pleiades: 1.2° S
09	Su	05:12	Moon north declination: 28.1° N
09	Su	11:01	Moon-Mars: 4.4° S
10	Mo	16:48	Moon perigee: 363300 km
12	We	23:07	New Moon
12	We	23:17	Total solar eclipse
13	Th	07:26	Perseid shower: ZHR = 90
13	Th	15:26	Moon descending node
15	Sa	11:29	Venus elongation: 45.9° E
16	Su	14:16	Moon-Venus: 2.2° N
17	Mo	17:19	Moon-Spica: 2.6° N
20	Th	08:16	First quarter
21	Fr	09:47	Moon-Antares: 0.7° N
22	Sa	13:50	Moon apogee: 404600 km
22	Sa	16:29	Moon south declination: 28.1° S
27	Th	22:14	Mercury superior conjunction
28	Fr	00:17	Moon ascending node
28	Fr	09:44	Partial lunar eclipse
28	Fr	09:48	Full Moon

Mars will be in Taurus, the Bull (*Vrushabha*), on 1 August. It moves to Gemini on 12 August.

Ephemeris of Mars:

Date	Alt*	Diam"	Mag	El°
01 Aug	+37°43'	4.9	1.3	45.7 W
10 Aug	+39°50'	4.8	1.3	48.3 W
20 Aug	+42°16'	4.9	1.3	51.3 W
30 Aug	+44°50'	5.0	1.3	54.5 W

Jupiter remains in Cancer this month. It is too close to the Sun at the beginning of the month. It reappears above the eastern horizon at dawn, by mid-month.

Ephemeris of Jupiter:

Date	Alt*	Diam"	Mag	El°
20 Aug	+06° 57'	31.5	-1.8	15.9 W
30 Aug	+13° 45'	31.7	-1.8	23.4 W

Saturn will be in Pisces, the Fishes (Meena), this month.

Ephemeris of Saturn:

Date	Alt*	Diam"	Ring#	Mag	El°
01 Aug	+70°47'	18.4	41.7"	0.6	114.1 W
10 Aug	+64°30'	18.7	42.3"	0.6	122.8 W
20 Aug	+56°02'	18.9	43.0	0.5	132.7 W
30 Aug	+46°48'	19.2	43.5	0.5	142.8 W

Angular diameter of the major axis of the ring in arcseconds.

* Altitudes of a planet are given for the beginning of civil twilight if the planet is to the west of the Sun, or for the end of civil twilight if the planet is to the east of the Sun.

(Disclaimer: We categorically mention here that we do not believe in astrology and believe that the only influence a planet has on us is to give us the viewing pleasure of its beauty. The sole purpose of giving the transition of planets and the Sun is to acquaint the reader with the Indian nomenclature of planets and constellations and also to show that the actual positions of the Sun and planets, which are based on modern computing, are very different from those given in astrology tables.)

March of the Moon

The month starts with the 95% illuminated waning moon rising nearly two hours after sunset. On 4 August, the Moon will be about 6° north of Saturn.

On 7 August, the Moon can be seen above the Pleiades (*Kruttika*) in the predawn sky. The next day, the 29% illuminated waning Moon will be surrounded by the Pleiades above, the Hyades with Aldebaran (*Rohini*) to its south,

Capella (in the constellation Auriga) to the north, and Mars below or east of it. The next day on 9 August, the Moon will be northwest of Mars.

On 12 August, astronomical twilight will begin about an hour and a quarter before sunrise. Mercury will rise about nine minutes after astronomical twilight. At the beginning of civil twilight, Mercury will be 9.5° above the horizon; below Mercury will be Jupiter, about 4° above the horizon, and further below, the thin lunar crescent will be 3° above the horizon. This will be a good photo-opportunity.

On 16 August, the waxing lunar crescent can be seen south of Venus soon after sunset. And then on 17 August, the slightly bigger lunar crescent will be southwest of Spica (*Chitra*). On 20 August, as the Moon reaches first quarter, it can be seen entering the southern claw of Scorpius, the Scorpion (*Vrushchika*). On 23 August, the Moon will be inside the Teapot asterism of Sagittarius, the Archer (*Dhanu*). Between 30 and 31 August, the near-Full Moon passes north of Saturn.

Celestial Spectacle

There will be a total solar eclipse on 12 August 2026. People in Greenland, Iceland, northern Russia, the Atlantic Ocean, Spain, and some parts of Portugal will be able to enjoy this event. A total solar eclipse is a spectacular event and those who are lucky enough to watch it will be in for a rare treat. Unfortunately once again, viewers in India will not be able to see this eclipse because the path of the eclipse will not be over India.

The eclipse will begin in Russia around midday local time, travel over the Arctic Ocean just south of the North Pole, and then touch Greenland around 4 pm local time. Spain and Portugal will witness a very rare event, with the eclipse taking place during local sunset. The Sun will be low on the horizon and will present a marvellous photo opportunity in locations where the horizon is visible. It will be 99.9% eclipsed over Madrid, and so viewers there will miss seeing the Sun's beautiful corona. The

corona is the outermost atmosphere of the Sun that can only be seen during totality. It is believed that the corona extends all the way up to the Earth. In London, the Sun will be 90% eclipsed.

The maximum duration of totality will be under 2.5 minutes. The Sun will be partially eclipsed across the rest of Europe, North Africa, and northern parts of North America.

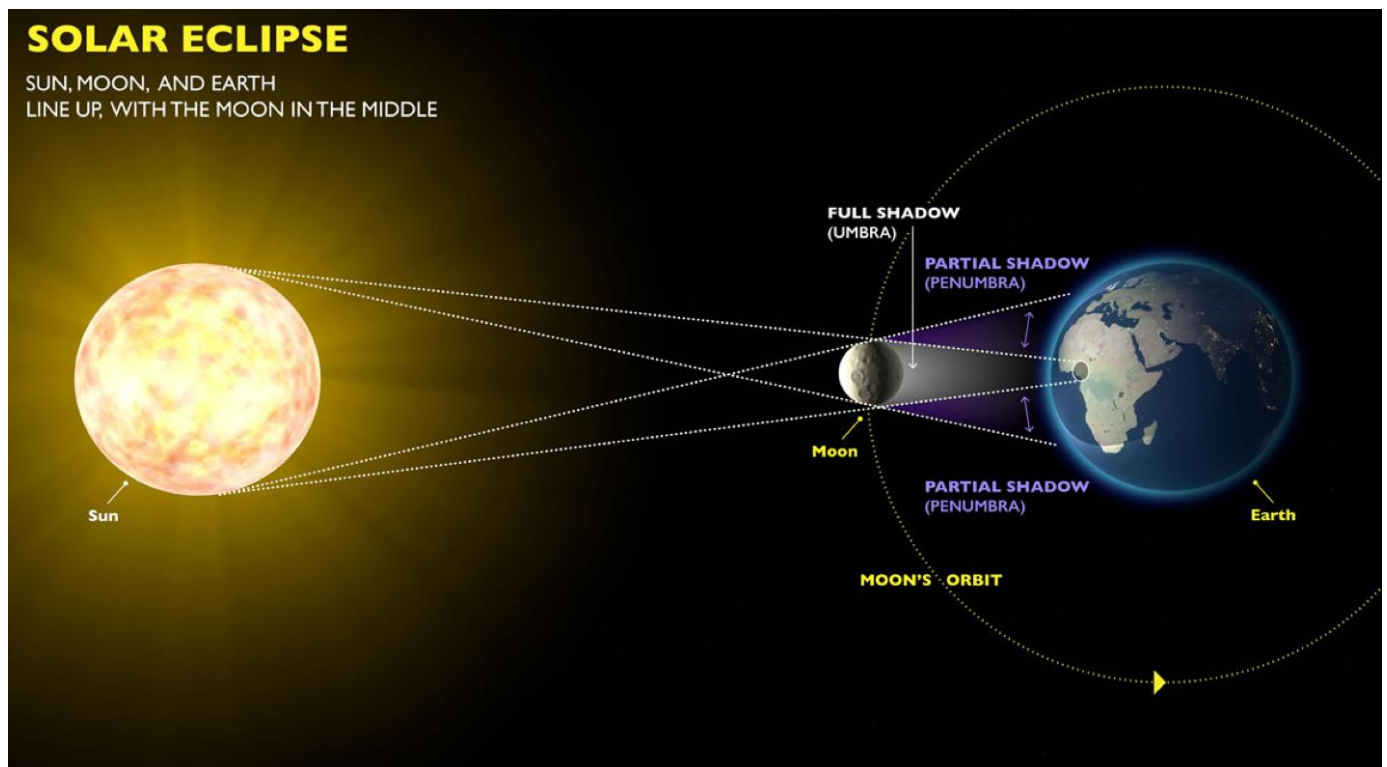
Eclipses follow a periodic cycle called the Saros Cycle, which is 18 years, 11 days and 8 hours. Two eclipses separated by one Saros will be very similar to each other. At this interval, the Sun, Earth and Moon return to a very similar orbital alignment. The Saros is a useful tool to study and identify eclipses. Each Saros series lasts for about 12 centuries. This eclipse belongs to Saros 126, a series of 72 eclipses, of which the present one is number 48.

Whether the Sun is eclipsed or not, it is

highly dangerous to look at the Sun directly at any time during the year. The Sun emits strong ultraviolet and even gamma rays which can pass through the clouds. These rays are so energetic that they can instantly burn a hole through your retina. The retina does not have pain receptors; hence you will not immediately feel any sensation when your retina gets burnt. But you will notice the change in your vision after a short while. This damage is irreversible and there is no medical cure that can restore your eyesight. The Sun should be viewed only with special solar filters that comply with the transmittance requirements of the ISO 12312-2 international standard.

This solar eclipse will be followed by a lunar eclipse two weeks later, on 28 August. This too will not be visible over India.

(For more information about solar eclipses and how to view them, please refer to SkyNews, April 2024)



Picture courtesy:

https://communications.oregonstate.edu/sites/communications.oregonstate.edu/files/solar_eclipse.png

Events Involving the Moons of Jupiter

In the table below, we list the events visible from India. The table gives the timings of eclipses, occultations, transits and shadow transits of the moons of Jupiter, suitable for Indian observers. The timings are given in Indian Standard Time (IST).

The output is given as per the following abbreviations and notations:

Columns: 1 = date; 2 = time; and 3 = satellite number.event type.phase.

Satellite numbers: 1 = Io; 2 = Europa; 3 = Ganymede; and 4 = Callisto.

Event type: Ec = eclipse; Oc = occultation; Tr = transit; and Sh = shadow transit.

Phase: D = disappear; R = reappear; I = ingress; and E = egress.

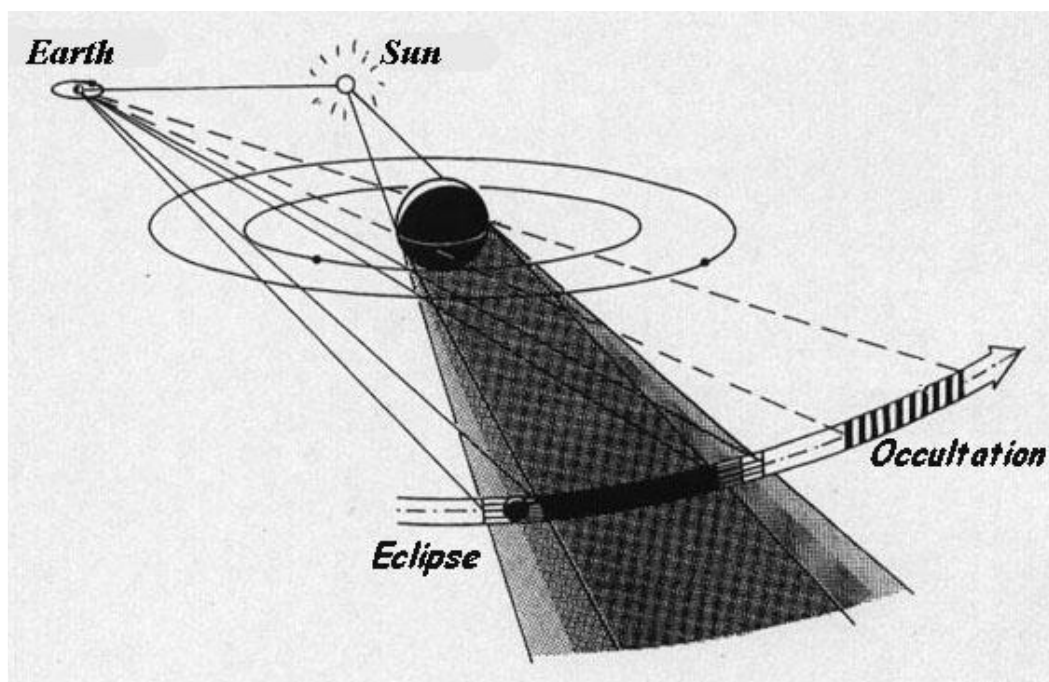
Example:

13 05:03:00 2.Sh.I

Means that

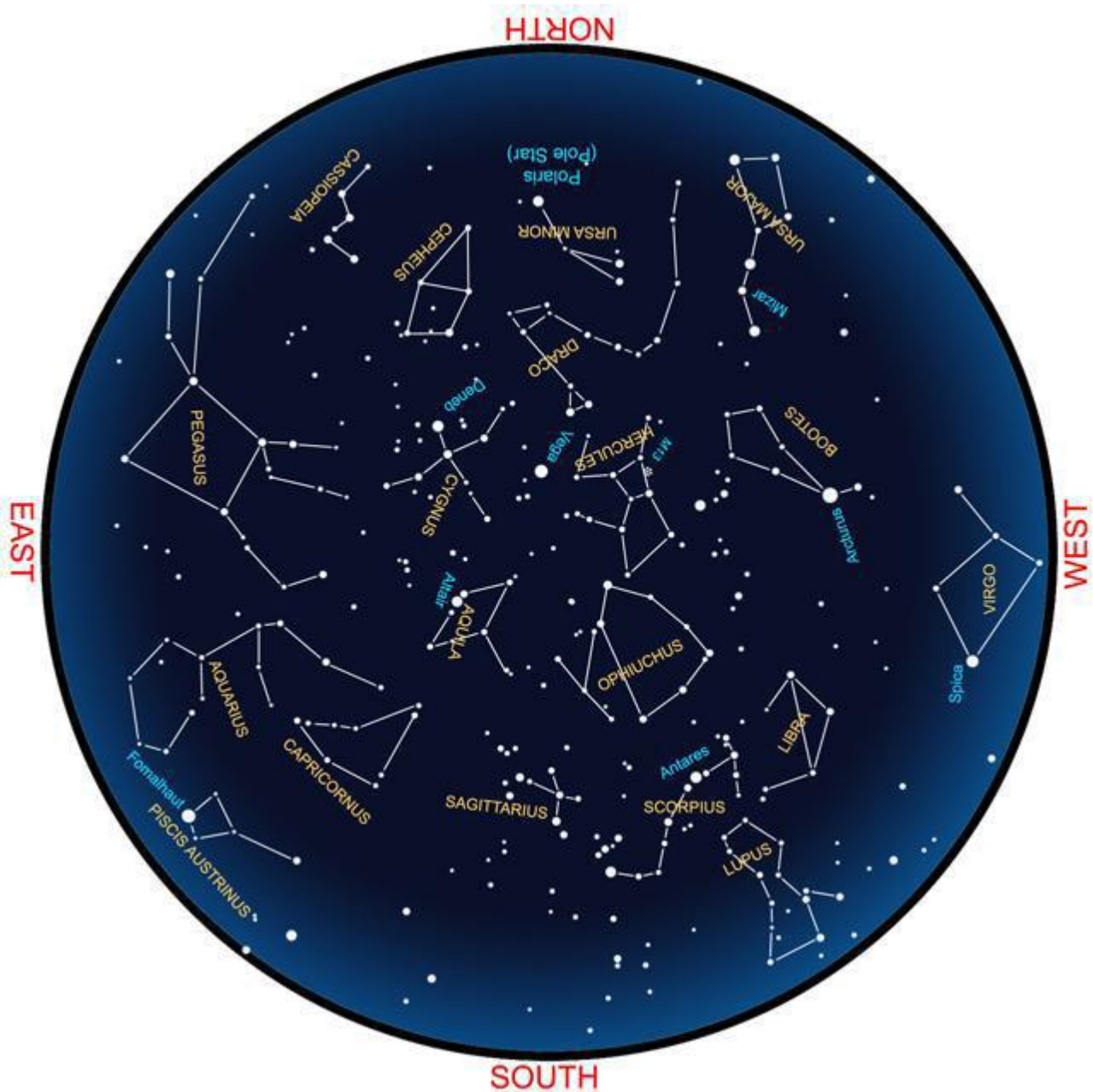
At 05:03:00 hours on 13 August, Europa's shadow will begin its transit across Jupiter's disc.

Satellites of Jupiter in August 2026										
<u>1</u>	<u>2</u>	<u>3</u>		<u>1</u>	<u>2</u>	<u>3</u>		<u>1</u>	<u>2</u>	<u>3</u>
13	05:03:00	2.Sh.I		19	04:50:42	1.Tr.E		28	05:04:12	3.Ec.D
18	04:51:36	1.Ec.D		26	04:33:12	1.Tr.I				



Eclipses occur when the satellites pass in the shadow of Jupiter. Occultations occur when the satellites pass behind Jupiter for a terrestrial observer. (Picture courtesy: <https://promenade.imcce.fr/en/pages3/365.html>)

**This sky map for August is drawn for mid-northern latitudes,
to be used around 9:30 p.m. local time**



For the latest updates, please visit <https://skytonight.wordpress.com/monthly-sky-notes-and-links/>

These pages are contributed by:

Arvind Paranjpye (paranjpye.arvind@gmail.com) (<http://arvindparanjpye.blogspot.com/>) and
Anjanee Rao (rao.anjanee@gmail.com)



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send an email to astronomydiy@gmail.com