



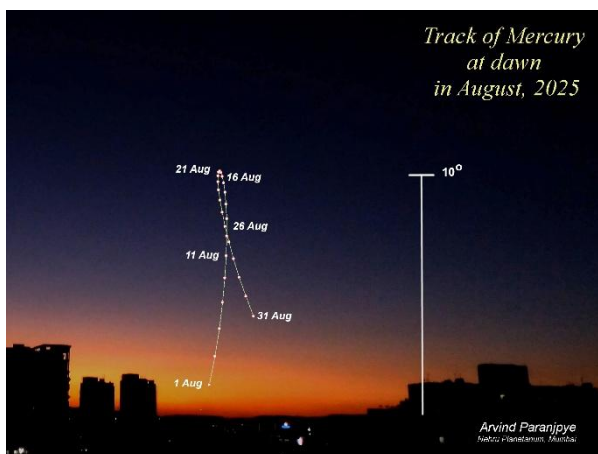
## Sun, Planets and Transitions

On 1 August, the Sun will be in Cancer, the Crab (*Karka*), with an angular diameter of 31'31". It moves to Leo, the Lion (*Simha*) on 11 August. On 31 August, its angular diameter will be 31'41".

**Mercury** will be in Cancer on 1 August. On the same day, it will be in inferior conjunction with the Sun at 10:35 hours IST. This means that it will be almost in the direction of the Sun. The planet will then reappear above the eastern horizon at dawn. This appearance of Mercury in the pre-dawn sky is favourable for observers close to the northern latitudes, as it climbs nearly straight up above the eastern horizon and then goes back almost the same way. Mercury will be in retrograde motion until 10 August. It will be stationary on 10 August at 23:24 hours IST, and will then resume its regular motion. It will be at its maximum western elongation on 19 August, at 20:59 hours IST.

### Ephemeris of Mercury:

Date	Alt*	Diam''	Mag	El°
06-Aug	+01°07'	10.6	3.5	9.2 W
10-Aug	+05°55'	9.7	2.1	13.8 W
20-Aug	+10°40'	7.3	-0.1	18.6 W
30-Aug	+05°05'	5.7	-1.1	13.6 W



Positions of Mercury above the eastern horizon at the beginning of civil twilight in August 2025

### List of Events in August 2025 (Time in IST)

Dt	Dy	Time	Event
01	Fr	18:11	First quarter
02	Sa	02:07	Moon apogee: 404200 km
04	Mo	07:10	Moon 0.6° N of Antares
05	Tu	19:07	Moon south declination: 28.5° S
09	Sa	13:25	Full Moon
11	Mo	20:23	Moon ascending node
12	Tu	12:23	Venus 0.9° N of Jupiter
12	Tu	20:35	Moon 4.1° S of Saturn
12	Tu	18:30	Neptune 2.5° S of Moon
13	We	01:17	Perseid shower: ZHR = 90
14	Th	23:31	Moon perigee: 369300 km
16	Sa	10:42	Last quarter
16	Sa	21:39	Moon 0.9° S of Pleiades: 0.9° S
16	Sa	23:26	Uranus 5.2° S of Moon
18	Mo	21:29	Moon north declination: 28.6° N
19	Tu	10:28	Mercury 2.6° S of Beehive
19	Tu	15:29	Mercury greatest elongation, west 18.6°
20	We	02:35	Moon 4.9° S of Jupiter
20	We	16:21	Moon 5° S of Venus
20	We	17:37	Moon 2.5° N of Pollux
21	Th	16:39	Moon 2.1° S of Beehive cluster
21	Th	18:42	Mercury 3.5° S of Moon
23	Sa	11:36	New Moon
23	Sa	22:25	Regulus 1.2° S of Moon
24	Su	21:11	Moon descending node
26	Tu	22:11	Moon 3° N of Mars
27	We	19:27	Moon 1.2° N of Spica
29	Fr	21:04	Moon apogee: 404600 km
31	Su	11:55	First quarter
31	Su	15:25	Moon 0.7° N of Antares
31	Su	23:29	Venus 1.5° S of Beehive

**Venus** is in Gemini, the Twins (*Mithuna*) on 1 August. It moves to Cancer on 24 August. On 12 August, it passes less than a degree south of Jupiter (conjunction). It enters the Gateway of Heaven on 18 August and exits on 21 August. (The Gateway of Heaven is a parallelogram asterism formed by joining the stars Castor, Pollux, Procyon and Gomiea. The path of the ecliptic, along which the planets appear to move, passes through the centre of the Gateway of Heaven).

### Ephemeris of Venus:

Date	Alt*	Diam''	Mag	EI°
01 Aug	+31°01'	14.3	-4.0	38.1 W
10 Aug	+28°47'	13.6	-4.0	36.2 W
20 Aug	+26°04'	13.0	-4.0	34.0 W
30 Aug	+23°12'	12.4	-4.0	31.7 W

**Mars** is in Virgo, the Virgin (*Kanya*) on 1 August.

### Ephemeris of Mars:

Date	Alt*	Diam''	Mag	EI°
01 Aug	+27° 54'	4.4	1.6	47.1 E
10 Aug	+23° 32'	4.3	1.6	44.1 E
20 Aug	+18° 47'	4.2	1.6	40.8 E
30 Aug	+14° 10'	4.1	1.6	37.5 E

**Jupiter** remains in Gemini in August. It will be visible over the eastern horizon in the pre-dawn sky.

### Ephemeris of Jupiter:

Date	Alt*	Diam''	Mag	EI°
01 Aug	+20° 37'	32.6	-1.9	27.3 W
10 Aug	+26° 44'	33.0	-1.9	34.0 W
20 Aug	+33° 42'	33.5	-2.0	41.6 W
30 Aug	+40° 51'	34.1	-2.0	49.4 W

**Saturn** remains in Pisces, the Fishes (*Meena*). It rises shortly before midnight and can be seen in the eastern sky.

### Ephemeris of Saturn:

Date	Alt*	Diam''	Mag	EI°
01 Aug	+57° 50'	18.6	0.8	127.4 W
10 Aug	+50° 23'	18.8	0.8	136.3 W
20 Aug	+41° 21'	19.0	0.7	146.4 W
30 Aug	+31° 51'	19.2	0.7	156.6 W

*(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 first quarter of the Moon on 1 August, at around 6 pm. The half-illuminated Moon will be almost overhead at sunset.

This month, the Moon does not have too many favourable close conjunctions with planets or bright stars. Between 3 and 4 August, it passes south of Antares (*Jyeshtha*). The almost Full Moon will be in the direction of the teapot asterism of Sagittarius.

Between 12 and 13 August the Moon passes south of Saturn and Uranus. On 17 August it will be right below the Pleiades (*Krutika*) at dawn. On 20 August the crescent Moon can be seen north of Jupiter. Then, between 20 and 21 August, it passes through the Gateway of Heaven and north of Venus (refer to section on Venus).

The Moon reappears above the western horizon after New Moon on 23 August.

On 26 August it will be south of Mars. The next day on 27 August, the Moon will be about 1° southwest of Spica (*Chitra*). On 31 August, the last day of the month, it will be east of Antares.

## Events Involving the Moons of Jupiter

Jupiter is now fairly well above the eastern horizon before sunrise.

In the table below, we have listed events that can be seen 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 = Callisto; 3 = Europa; and 4 = Ganymede.

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

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

Example:

**5**            **04:57:54**            **2.Tr.E**

**6**            **05:21:48**            **1.Ec.D**

Means that

At 04:57:54 hours on 5 August, the transiting Callisto will exit the disc of Jupiter. The next morning, at 05:21:48 hours on 6 August, Io will enter Jupiter's shadow and be eclipsed by the planet.

<b>Satellites of Jupiter in August 2025</b>										
<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>
5	04:57:54	2.Tr.E		14	05:23:24	1.Tr.I		28	03:36:36	2.Ec.D
6	05:21:48	1.Ec.D		15	04:49:30	1.Oc.R		30	05:32:18	1.Ec.D
7	04:56:48	1.Sh.E		21	04:23:42	4.Ec.R		30	02:52:00	1.Sh.I
8	05:38:36	1.Tr.E		22	05:35:24	2.Oc.R		30	03:51:00	1.Tr.I
12	04:59:00	2.Tr.I		22	03:38:18	1.Ec.D		30	05:06:12	1.Sh.E
13	04:49:00	4.Tr.E		23	04:07:18	1.Tr.E		30	03:18:42	1.Oc.R
14	04:36:18	1.Sh.I		24	04:06:36	3.Sh.I				



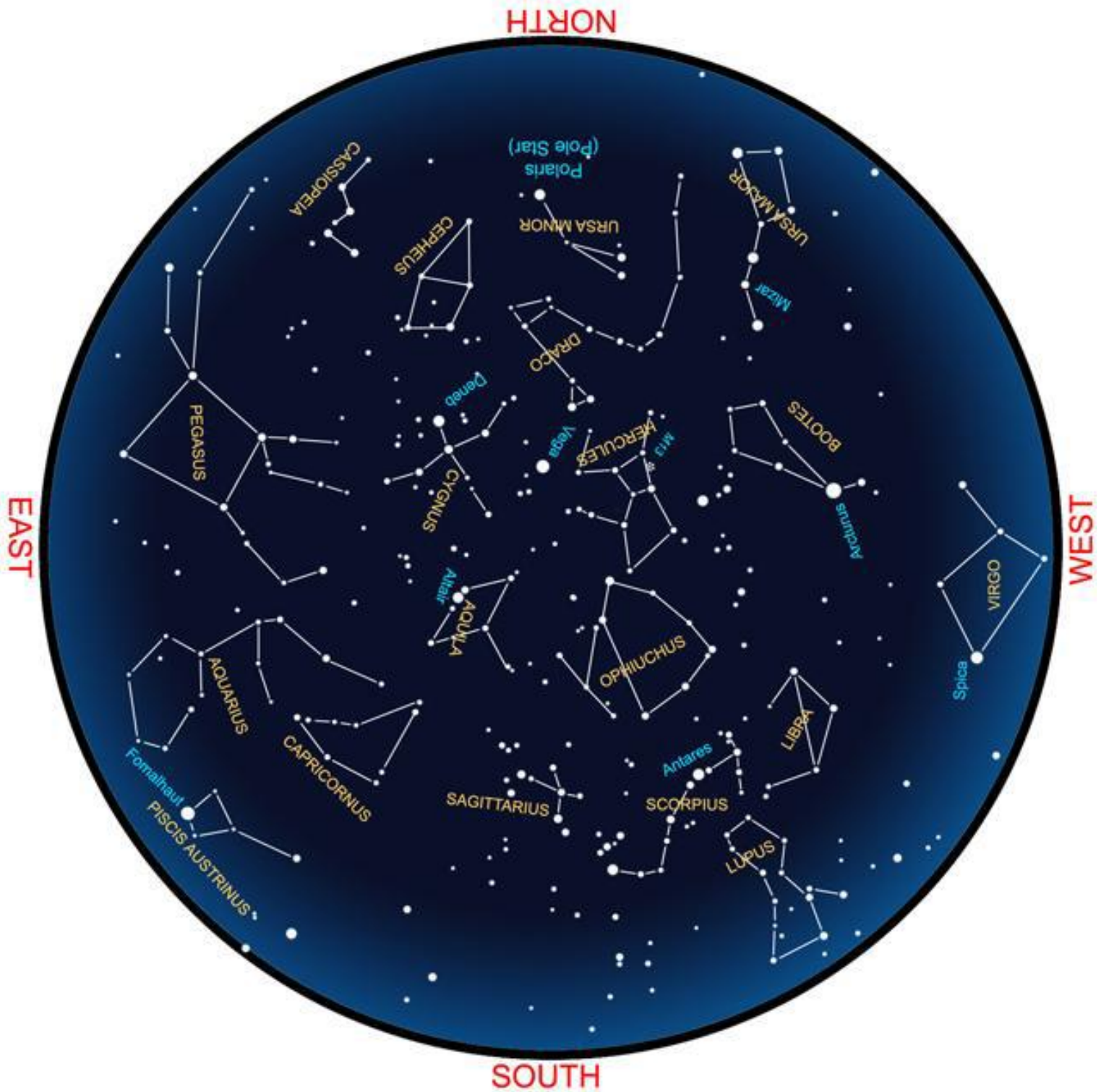
Credit : Karkoshka et Murrell, NMSU (tel. de 60cm). Shadows of the Galilean satellites Io, Callisto and Ganymede on 10 November 1987 on Jupiter. (Picture courtesy: <https://promenade.imcce.fr/en/pages3/365.html>)

For notes on stargazing visit <https://skytonight.wordpress.com/monthly-sky-notes-and-links/>

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



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