SkyNews Astronomical events for Indian observers

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Sun, Planets and Transitions

On 1 March, the **Sun** will be in Aquarius, the Water Bearer (*Kumbha*), with an angular diameter of 32'17". On 12 March, it moves to Pisces, the Fishes (*Meena*), and remains there for the rest of the month. On 31 March, its angular diameter will be 32'01".

The vernal equinox will be on 20 March at 14:32 hours IST. At this time, the Sun's rays will be perpendicular to the equator.

We now repeat what we have mentioned in the past: on this day, contrary to its name — equinox — the day and night will not be of equal duration all over the world. Since the Earth is spherical, the Sun's rays will be perpendicular to the equator on this day, but they will be slanting at other latitudes. Therefore sunrise and sunset timings will differ from one latitude to another.

Moreover, the Sun has an apparent size of about half a degree. The time of sunrise is defined as the moment when the Sun's upper limb is just visible over the horizon. In addition, refraction, or the bending of light rays in the Earth's atmosphere, causes the rays to be seen a few minutes ahead of the true time of sunrise. Likewise, sunset takes place when the last rays of the Sun disappear beneath the western horizon. Once again refraction causes the last rays to disappear a few minutes after true sunset.

For more information please visit https://skytonight.wordpress.com/2013/04/30/equinox-day

Mercury will be in Pisces on 1 March and will remain in this constellation throughout the month. The planet's appearance over the western horizon is short but unique. On 1 March, it can be spotted over the thin lunar crescent soon after sunset. On 11 March, it will be almost due south

List of Events in March 2025 (Time in IST)

Dt	Dy	Time	Event
01	Sa	11:10	Moon ascending node
02	Su	02:48	Moon perigee: 362000 km
02	Su	04:48	Moon-Venus: 6.4° N
05	We	18:02	Moon-Pleiades: 0.6° S
06	Th	22:02	First quarter
07	Fr	21:26	Moon north declination: 28.7° N
08	Sa	11:29	Mercury elongation: 18.2° E
09	Su	05:57	Moon-Mars: 1.8° S
09	Su	16:36	Moon-Pollux: 2.1° N
10	Mo	16:40	Moon-Beehive: 2.8° S
12	We	11:37	Moon-Regulus: 2.4° S
12	We	15:33	Saturn conjunction
12	We	23:22	Mercury-Venus: 5.5° N
14	Fr	12:25	Full Moon
14	Fr	12:30	Total lunar eclipse
14	Fr	19:15	Moon descending node
15	Sa	01:15	Mercury stationary
17	Mo	00:46	Moon-Spica: 0.4° N
17	Mo	22:07	Moon apogee: 405800 km
20	Th	03:50	Neptune conjunction
20	Th	14:32	Vernal equinox
20	Th	21:28	Moon-Antares: 0.5° N, occultation
22	Sa	12:17	Moon south declination: 28.7° S
22	Sa	16:59	Last quarter
23	Su	06:56	Venus inferior conjunction
25	Tu	01:17	Mercury inferior conjunction
28	Fr	21:59	Moon ascending node
29	Sa	16:18	Partial solar eclipse
29	Sa	16:28	New Moon eclipse
30	Su	00:57	Mars-Pollux: 4° S
30	Su	10:56	Moon perigee: 358100 km

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of Venus. On 15 March it will be stationery in RA at 13:15 hours and will go into retrograde motion. It will then slide down day-by-day towards the horizon. Mercury is in inferior conjunction with the Sun on 25 March. After that date it will reappear above the eastern horizon just before sunrise.

Remember the saying, "Beware the Ides of March". (See box)

Ephemeris of Mercury:

Date	Alt*	Mag	diam"	El°
01 Mar	+09°08'	-1.0	6.11	16.0
10 Mar	+11°19	0.1	7.86	17.9
20 Mar	+01°55'	3.4	10.41	8.3

"Beware the Ides of March" is a line from William Shakespeare's play, 'The Tragedy of Julius Caesar'. It is a warning from a fortune-teller to Julius Caesar about his impending assassination. The saying is associated with misfortune and doom.

Explanation: The 'Ides of March' is 15 March, the day that Julius Caesar was assassinated in 44 BCE. 'Ides' comes from the Latin word 'iduare', which means 'to divide'. In the ancient Roman calendar, the ides was the day of the Full Moon, which marked the middle of the month. The play is based on actual events in Roman history. Caesar disregarded the warning from the fortune-teller and was assassinated on 15 March.

Venus is in Pisces on 1 March. It moves to Pegasus, the Flying Horse (*Maha ashwa*) on 22 March, and then back to Pisces on 24 March. It completes its appearance over the western horizon this month. After its brief meeting with Mercury on 11 March, it too slides down and gets too close to the Sun for safe observation.

Venus is in inferior conjunction with the Sun on 23 March at 12:26 hours IST. It will then reappear above the eastern horizon before sunrise.

Ashen light of Venus: This month, try to observe Venus with a high-power eyepiece for the ashen light of Venus. While observing Venus on 9 January 1643, the Italian astronomer Giovanni Riccioli noticed that the darker limb of Venus had a faint greyish glow. He called it 'The ashen light of Venus'. (He would most likely have named it in Italian, to denote its resemblance to ashes). Visit https://skytonight.wordpress.com/ashen-light-of-venus/ for more details.

Ephemeris of Venus:

Date	Alt*	Mag	diam"	El°
01 Mar	+22°00'22"	-4.5	49.14	30.3
10 Mar	+12°03'06"	-4.4	55.34	20.7

* The altitudes of Mercury and Venus are given at the start of civil twilight if the planet is to the west of the Sun and at the end of civil twilight if it is to the east of the Sun.

Mars remains in Gemini, the Twins (*Mithuna*) in March 2025. It is still well-placed to observe from northern latitudes, but is beginning to fade with a reduction in its angular size.

Ephemeris of Mars:

Date	Mag	Diam"	El°
01 Mar	-0.3	10.80	125.9
10 Mar	-0.0	9.93	117.9
20 Mar	0.2	9.07	110.1
30 Mar	0.4	8.32	103.0

Jupiter remains in Taurus, the Bull (*Vrushabha*). It is visible all through the night this month. There are some excellent events involving its moons (see below).

Ephemeris of Jupiter:

Date	Mag	Diam"	El°
01 Mar	-2.3	39.48	91.1
10 Mar	-2.3	38.36	82.9
20 Mar	-2.2	37.21	74.1
30 Mar	-2.1	36.17	65.7

Saturn remains in Aquarius. It is too close to the Sun. It will be in superior conjunction with the Sun on 12 March. It will reappear above the eastern horizon before sunrise by the month's end.

Ephemeris of Saturn:

Date	Mag	Diam"	El°
01 Mar	1.1	15.63	9.7
10 Mar	1.1	15.61	2.5
20 Mar	1.2	15.62	7.4
30 Mar	1.2	15.67	15.9

March of the Moon

On 1 March soon after sunset, the thin lunar crescent can be seen due west. The next day on 2 March, the 9.2% illuminated Moon lies to the east of Venus. At dusk, it can be seen about 5 degrees above Venus.

On 3 March the Moon will pass north of the Pleiades (*Kruttika*) cluster of stars. It will occult a 6.5 magnitude star, SAO 76206, just at the end of civil twilight. Between 8 and 9 March, the Moon passes north of Mars.

The Moon will be in the head region of Leo, the Lion (*Simha*), on 11 March. The next day, the almost Full Moon can be seen east of Regulus (*Magha*).

On 17 March the Moon passes north of Spica (*Chitra*). From 20 to 22 March, it crosses Scorpio, the Scorpion (*Vrushchika*). On 23 March the Moon can be seen inside the 'teapot' asterism of Sagittarius, the Archer (*Dhanu*).

Eclipses

This month we have two eclipses. The first is a **total lunar eclipse** on 14 March. This eclipse is not visible from India. It begins at about 09:30 hours and ends by 13:00 hours IST.

Moon enters penumbra:	14 Mar 2025 09:25:18
Moon enters umbra:	14 Mar 2025 10:38:53
Start of totality:	14 Mar 2025 11:55:10
Maximum eclipse:	14 Mar 2025 12:28:21
End of totality:	14 Mar 2025 13:01:30
Moon leaves umbra:	14 Mar 2025 14:17:46
Moon leaves penumbra:	14 Mar 2025 15:31:27

The second eclipse is a **partial solar eclipse** on 29 March. This eclipse is also not visible from India. It will be visible over Europe, North Asia, North/West Africa, much of North America, northern South America, and the Atlantic and Arctic Oceans.

Partial eclipse begins:	14:20 hours IST
Maximum Eclipse:	16:17 hours IST
Partial eclipse ends:	18:13 hours IST

Events Involving the Moons of Jupiter

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:

Events for 1 and 4 March and what they mean:

1	**19:03:06**	**1.Ec.R**
4	**22:52:54**	**3.Tr.I**

Means that

At 19:03:06 hours on 1 March, the eclipse of Io by Jupiter will end. At 22:52:54 hours on 4 March, Europa will transit Jupiter's surface.

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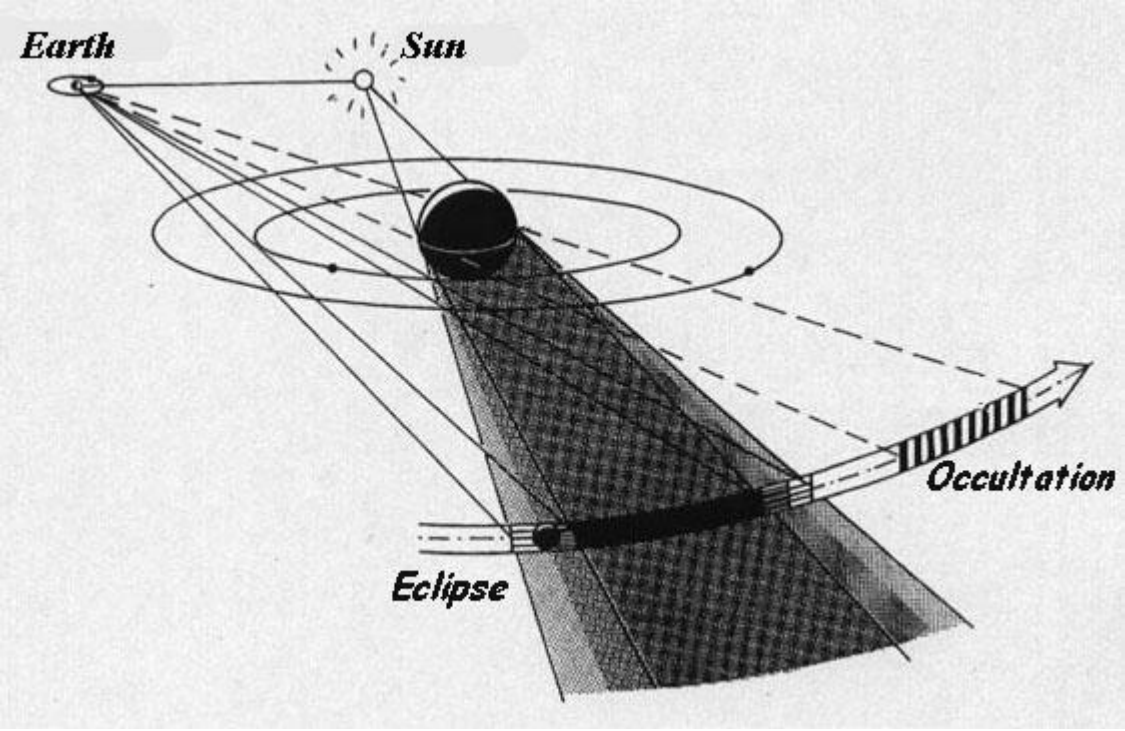
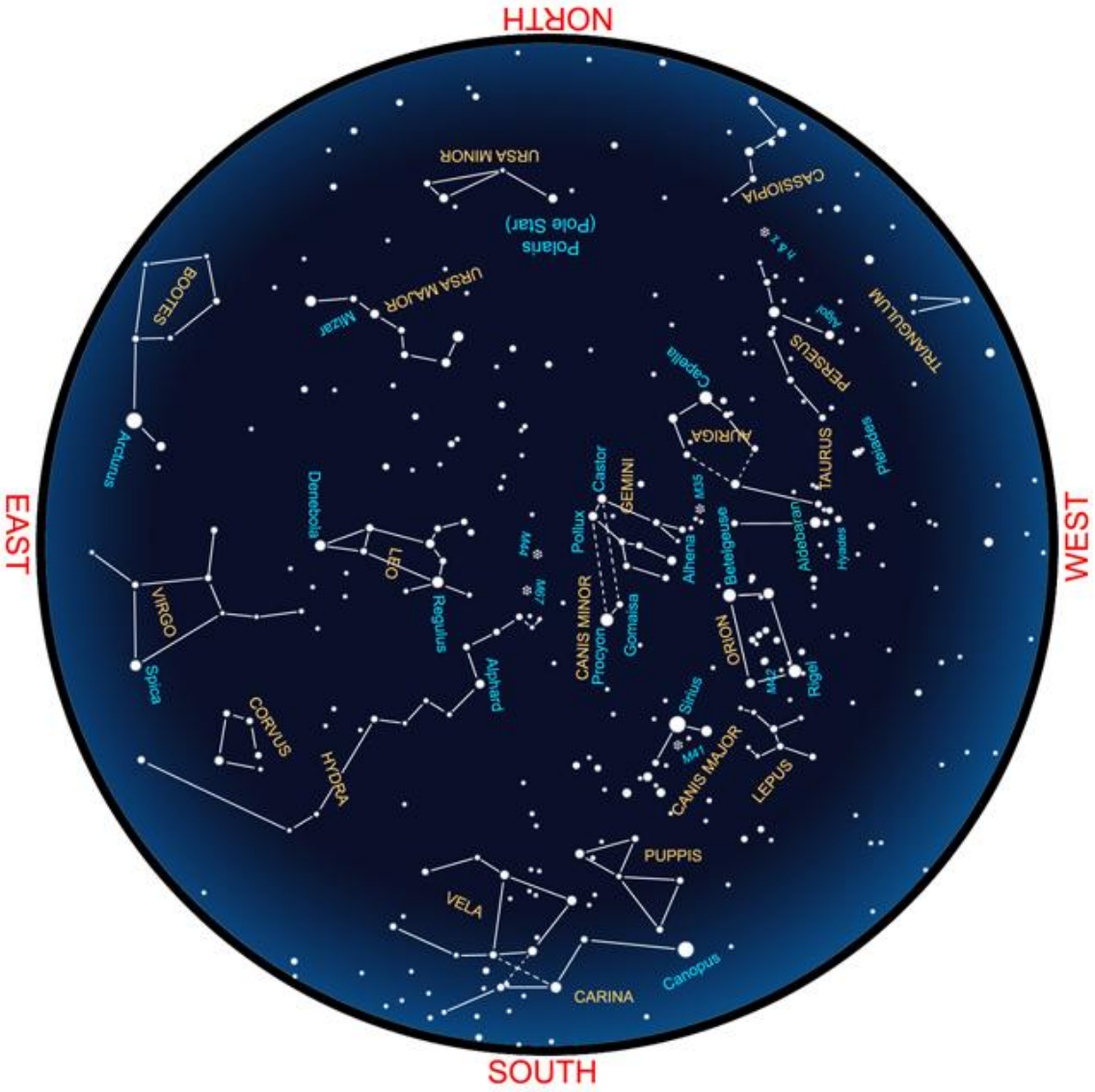
Satellites of Jupiter in March 2025

1	2	3	1	2	3	1	2	3	1	2	3
1	19:03:06	1.Ec.R	8	20:58:18	1.Ec.R	15	22:53:30	1.Ec.R	23	22:03:42	1.Sh.E
4	22:52:54	3.Tr.I	8	21:01:00	2.Sh.E	15	23:36:48	2.Sh.E	24	19:17:30	1.Ec.R
6	21:02:00	2.Oc.D	13	23:42:18	2.Oc.D	16	20:07:48	1.Sh.E	24	20:59:48	2.Ec.R
6	22:57:54	1.Oc.D	14	22:08:36	1.Tr.I	22	20:53:42	3.Oc.D	29	23:18:06	1.Oc.D
6	23:39:36	2.Oc.R	14	23:26:12	1.Sh.I	22	21:08:18	2.Tr.I	30	20:34:24	1.Tr.I
6	23:43:18	2.Ec.D	15	0:21:00	1.Tr.E	22	21:20:12	1.Oc.D	30	21:46:36	1.Sh.I
7	20:11:48	1.Tr.I	15	19:13:06	3.Oc.R	22	23:22:48	3.Oc.R	30	22:47:12	1.Tr.E
7	21:30:24	1.Sh.I	15	19:23:06	1.Oc.D	22	23:35:48	2.Sh.I	31	21:12:36	1.Ec.R
7	22:24:00	1.Tr.E	15	21:00:30	2.Sh.I	22	23:43:06	2.Tr.E			
7	23:42:54	1.Sh.E	15	21:03:18	2.Tr.E	23	19:50:54	1.Sh.I			
8	20:30:00	3.Ec.R	15	21:59:54	3.Ec.D	23	20:48:24	1.Tr.E			



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



For notes on stargazing click here.
Or visit https://skytonight.wordpress.com/monthly-sky-notes-and-links/

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