



Sun, Planets and Transitions

The Sun will be in Pisces, the Fishes (*Meena*) on 1 April, with an angular diameter of 32'1". On 19 April it will move to Aries, the Ram (*Mesha*). On 30 April its angular diameter will be 31'46".

Beginning this April, the Sun, Mercury and Venus are in Pisces, but the angular separation between these planets and the Sun is increasing. Mercury, Venus and Saturn reappear above the eastern horizon at dawn; Mars and Jupiter continue to shine above the western horizon at dusk.

During the first half of the month, Mercury and Saturn will be less than 5° from each other. The ephemerides of these planets are given below. The altitude of the planets is provided at the start of civil twilight if it is to the east of the Sun.

Mercury will be in Pisces on 1 April. It is well placed for observations this month. It rises rapidly over the horizon towards the southeast and then moves northwards.

Mercury has been in retrograde motion. On 6 April it will be stationary in RA and will then resume its regular motion. On 17 April, Mercury will be about 40° from Neptune.

Ephemeris of Mercury:

Date	Alt*	Mag	diam"	EI°
01 Apr	+09°36'	-4.2	56.85	15.8 East
10 Apr	+18°41'	-4.4	50.97	26.1 East
20 Apr	+25°54'	-4.5	43.57	34.8 East
30 Apr	+30°52'	-4.5	37.04	40.3 East

Mars moves from Gemini, the Twins (*Mithuna*) to Cancer, the Crab (*Karka*) on 13 April.

List of Events in April 2025 (Time in IST)

Dt	Dy	Time	Event
1	Tu	17:02	Moon-Uranus 4.6° S
2	We	01:58	Moon-Pleiades: 0.6° S
2	We	04:45	Jupiter 5.5° S of Moon
4	Fr	03:45	Moon North Dec.: 28.7° N
5	Sa	07:44	First quarter
5	Sa	22:16	Moon-Pollux: 2.1° N
6	Su	00:34	Moon-Mars: 2.3° S
6	Su	12:54	Mercury stationary
6	Su	22:14	Moon-Beehive: 2.8° S
8	Tu	17:21	Moon-Regulus: 2.4° S
10	Th	17:49	Mercury-Saturn: 2.1° N
10	Th	20:30	Venus stationary
11	Fr	01:26	Moon descending node
13	Su	05:52	Full Moon
13	Su	07:09	Moon-Spica: 0.4° N
14	Mo	04:18	Moon apogee: 406300 km
17	Th	03:49	Moon-Antares: 0.4° N
18	Fr	18:54	Moon south declination: 28.6° S
21	Mo	07:05	Last quarter
22	Tu	00:29	Mercury elongation: 27.4° W
22	Tu	18:23	Lyrid shower: ZHR = 20
25	Fr	06:04	Moon-Saturn 2.0° S
25	Fr	08:48	Moon-Venus: 2.4° N
25	Fr	07:53	Moon ascending node
25	Fr	09:45	Moon-Saturn: 2.3° S
26	Sa	06:35	Moon-Mercury: 4.3° S
27	Su	21:45	Moon perigee: 357100 km
28	Mo	01:01	New Moon
29	Tu	00:57	Venus-Saturn: 3.7° N
29	Tu	12:05	Moon-Pleiades: 0.5° S
29	Tu	05:42	Moon-Uranus 4.7° S

Ephemeris of Mars:

Date	Alt°	Mag	Diam"	EI°
01 Apr	+82°24'	0.5	8.18	101.7 East
10 Apr	+85°45'	0.6	7.61	96.0 East
20 Apr	+84°21'	0.8	7.07	90.3 East
30 Apr	+80°06'	0.9	6.60	84.9 East



Venus remains in Pisces, the Fishes (*Meena*) this month. It has been in retrograde motion and will be stationary on 10 April. After that, it will resume its regular motion.

Ephemeris of Venus:

Date	Alt°	Mag	Diam''	El°
01 Apr	+09° 36'	-4.2	56.85	15.8 East
10 Apr	+18° 41'	-4.4	50.97	26.1 East
20 Apr	+25° 54'	-4.5	43.57	34.8 East
30 Apr	+30° 52'	-4.5	37.04	40.3 East

Jupiter remains in Taurus. It is now very well placed in the evening, above the western horizon, for observation during the early part of the night. See below for some interesting eclipses, transits and occultations of Jupiter's moons.

Ephemeris of Jupiter:

Date	Alt°	Mag	Diam''	El°
01 Apr	+57°02'	-2.1	35.98	64.0 East
10 Apr	+50°19'	-2.1	35.16	56.6 East
20 Apr	+43°03'	-2.0	34.37	48.6 East
30 Apr	+35°58'	-2.0	33.69	40.8 East

Saturn moves from Aquarius, the Water Bearer (*Kumbha*), to Pisces on 19 April.

Ephemeris of Saturn:

Date	Alt°	Mag	Diam''	El°
01 Apr	+05°43'	1.2	15.68	17.2 West
10 Apr	+13°11'	1.2	15.76	24.9 West
20 Apr	+21°31'	1.2	15.88	33.6 West
30 Apr	+29°50'	1.2	16.04	42.2 West

March of the Moon

On 1 April, the thin lunar crescent will be seen right below the Pleiades cluster. On the same evening, Uranus can be spotted less than 5° south of the Moon.

The next day on 2 April, the Moon, Jupiter and Aldebaran (*Rohini*, within the Hyades cluster) make a nearly right angled triangle, with Jupiter at the 90° angle. They will all be within 10° of

each other. On 3 April, the Moon will be east of Elnath (beta Tauri or *Agni*).

On 5 April, the Moon will be south of Pollux. It will make a right angled triangle with Pollux and Mars, with the Moon at the 90° angle. The same night, the Moon will occult a 5.3 magnitude star, 76 Geminorum. Details of the event are given below and will be available at <https://skytonight.wordpress.com>. This is a good event to observe with a pair of binoculars.

On 8 April, the Moon will be seen north of Regulus (*Magha*). On 17 April, it will be less than half a degree from Antares (*Jyeshtha*). It will be seen entering the tea pot asterism of Sagittarus (*Dhanu*) on 19 April.

On 25 April, Venus, Saturn and Mercury make a right angled triangle with Saturn at 90°. The Moon will be just outside this triangle above Saturn. The next day, the Moon will be north of Mercury. It reappears above the western horizon at sunset on 28 April. On 29 April, it will be above the Pleiades (*Kruttika*). On 30 April it will make an equilateral triangle with Jupiter and Elnath (*Agni*).

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.

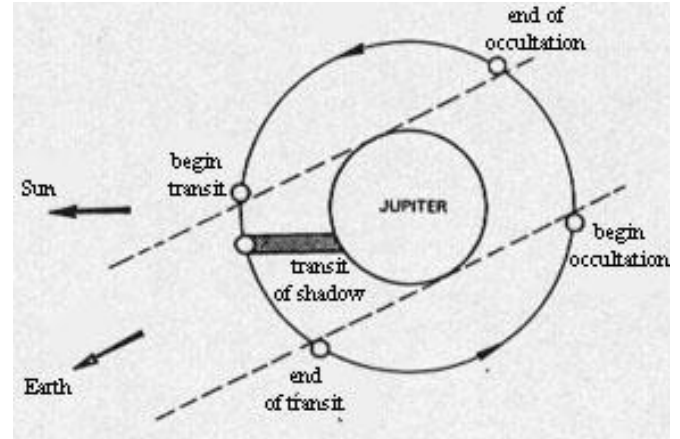
Example:

Events for 1 and 4 March and what they mean:

2 20:15:00 3.Sh.I
 2 22:47:54 3.Sh.E

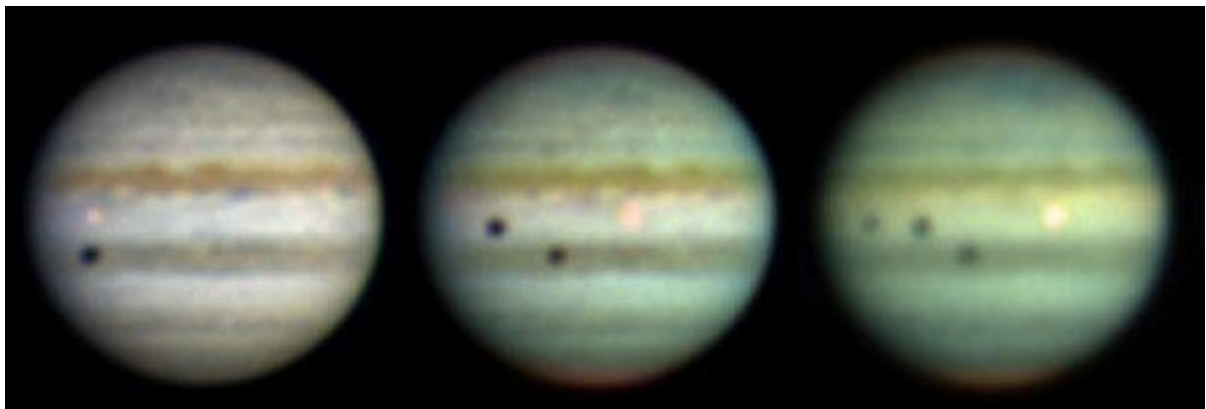
Means that

At 22:15:00 hours on 2 April, Callisto's shadow will begin to transit Jupiter. The shadow transit will end at 22:47:54 hours.



Transits of shadow occur when the shadow of a satellite passes over the apparent disk of Jupiter. (Picture courtesy: <https://promenade.imcce.fr/en/pages3/365.html>)

Satellites of Jupiter in April 2025														
<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>		<u>1</u>	<u>2</u>	<u>3</u>
2	20:15:00	3.Sh.I		8	20:24:24	1.Sh.E		15	22:20:12	1.Sh.E		23	21:21:42	2.Tr.I
2	22:47:54	3.Sh.E		9	19:45:06	3.Tr.I		16	19:31:36	1.Ec.R		23	21:26:36	1.Ec.R
6	22:33:36	1.Tr.I		9	20:41:54	2.Sh.E		16	20:39:18	2.Sh.I		25	20:52:54	2.Ec.R
7	19:46:24	1.Oc.D		9	22:16:06	3.Tr.E		16	21:13:42	2.Tr.E		27	20:56:42	3.Oc.R
7	21:16:12	2.Oc.D		14	21:45:42	1.Oc.D		20	20:39:00	3.Ec.R		27	22:00:48	3.Ec.D
7	23:07:42	1.Ec.R		15	20:06:48	1.Sh.I		22	21:04:00	1.Tr.I		30	20:15:48	1.Oc.D
8	19:16:42	1.Tr.E		15	21:16:54	1.Tr.E		22	22:02:18	1.Sh.I				

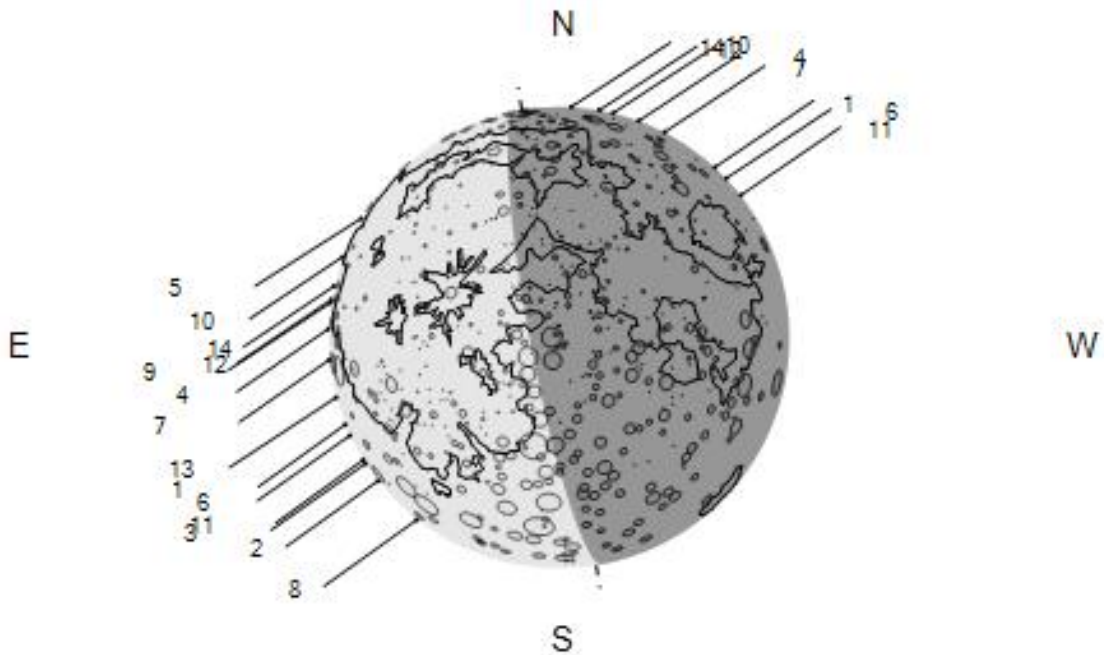


Credit : Karkoshka et Murrell, NMSU (tel. de 60cm). Shadows of the Galilean satellites Io, Callisto and Ganymede on 10 November 1987 on Jupiter. (Picture courtesy: <https://promenade.imcce.fr/en/pages3/365.html>)

▼ Occultation Prediction of 76 Geminorum, Magnitude 5.3

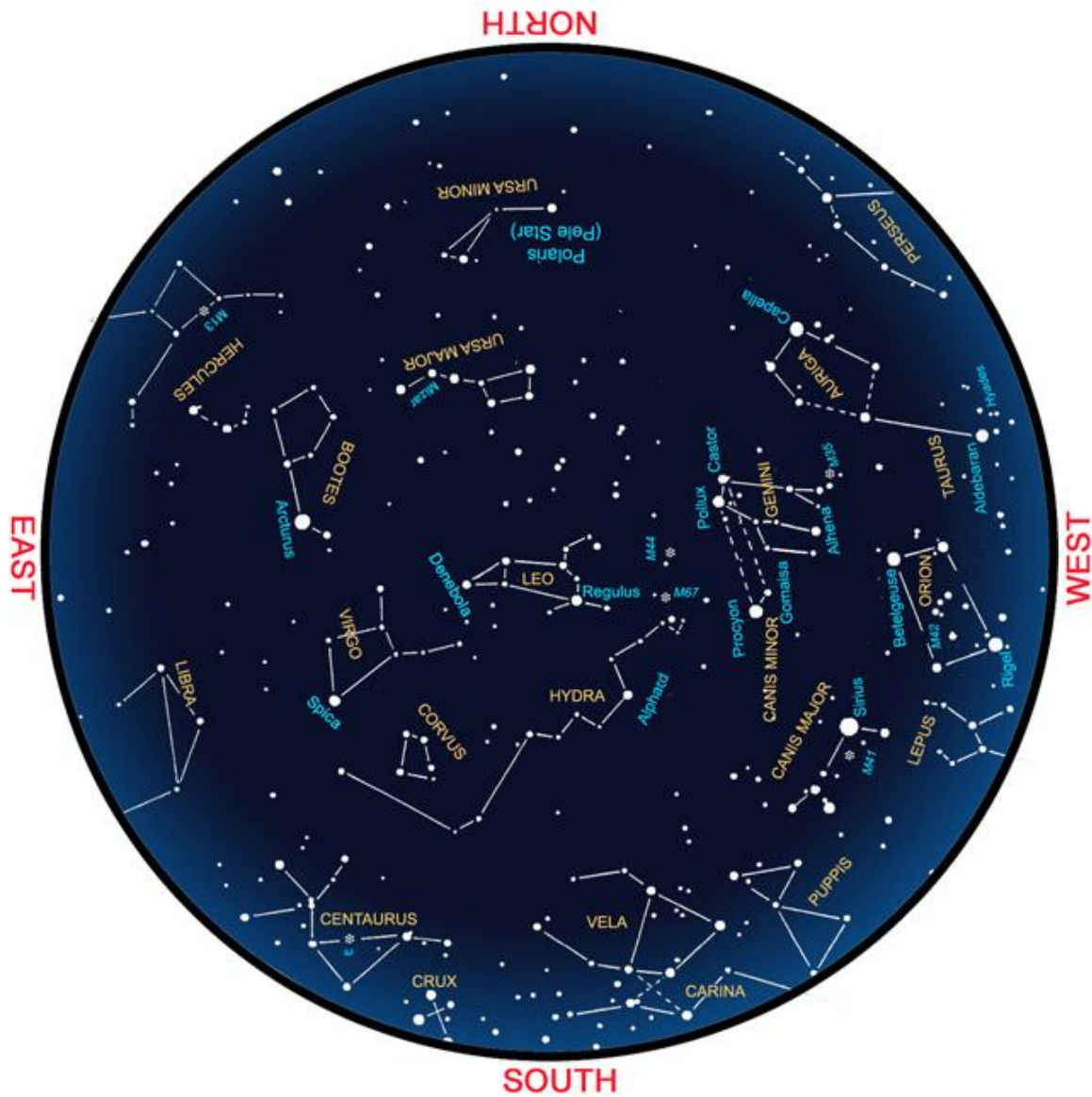
Date: 5 April 2025

No.	Location	Disappearance		Reappearance	
		Time IST	Moon's Altitude (°)	Time IST	Moon's Altitude (°)
1	Ahmedabad	23:18:38	38	00:21:11	24 (On 6 April)
2	Bengaluru	23:34:01	27		
3	Chennai	23:34:41	24		
4	Delhi	23:18:27	35	00:08:58	24 (On 6 April)
5	Guwahati	23:36:35	18		
6	Hyderabad	23:29:11	29	00:28:53	15 (On 6 April)
7	Jaipur	23:18:01	36	00:13:17	24 (On 6 April)
8	Kanyakumari	23:40:46	23		
9	Kolkata	23:32:25	21		
10	Leh	23:17:02	36	23:54:18	29
11	Mumbai	23:23:59	35	00:27:18	21 (On 6 April)
12	Naini Tal	23:20:56	33	00:05:51	23 (On 6 April)
13	Port Blair	23:38:52	11		
14	Srinagar	23:12:19	39	23:56:29	30



Lunar map of disappearance and reappearance of 76 Geminorum. The numbers on the map correspond to the stations in the table above

This sky map for April 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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