

Dear Reader, the last four issues of SkyNews had been put on hold due to the CoViD pandemic. As we unlock from the nation-wide lockdown, we are happy to be able to resume publication of SkyNews once again.

## Sun and Planets

June to September are the months of the Monsoon in India. Even when it is not raining, the skies are generally overcast, giving us little chance to look beyond Earth's atmosphere.

However, at times the sky does clear up, giving us an excellent chance to stargaze. At such times there is a lull in the atmosphere and it is steady with no strong winds. The rains, literally, wash down all the dust and smoke particles floating in the atmosphere, leaving behind a very clean sky. Do not miss these opportunities.

During the first half of the month all the planets except Mercury can be seen in the pre-dawn sky, about an hour before sunrise. On 1 July Mercury is at inferior conjunction, in the direction of the Sun.

Even though both the Sun and Mercury are in Gemini in the beginning of the month, Mercury is moving in the opposite direction and thus it becomes visible above the eastern horizon by mid-month. It reaches its maximum western elongation on 22 July.

From about 15 July all the planets can be seen in the sky from sunset to sunrise for the next 10 days.

Venus reappears in the morning sky. On 12 July it is less than a degree from Aldebaran (*Rohini*).

## Transitions of the Sun and Planets

*(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 the 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*

### List of Events

Dt	Dy	Time	Event
01	We	08:15	Mercury inferior conjunction
03	Fr	00:51	Moon 6.2° N of Aldebaran
04	Sa	08:48	Moon descending node
04	Sa	20:29	Aphelion: 1.0167 AU
05	Su	07:07	Moon south declination: 24.1° S
05	Su	10:00	Penumbral lunar eclipse
05	Su	10:14	Full Moon
06	Mo	03:07	Moon-Jupiter: 1.9° N
06	Mo	14:15	Moon-Saturn: 2.6° N
11	Sa	17:47	Venus-Aldebaran: 1° N
12	Su	01:06	Moon-Mars: 2.2° N
13	Mo	00:57	Moon Apogee: 404200 km
13	Mo	04:59	Last quarter
14	Tu	12:33	Jupiter opposition
14	Tu	19:43	Uranus 3.5° N of Moon
17	Fr	06:19	Aldebaran 3.8° S of Moon
17	Fr	12:56	Moon-Venus: 3.4° S
18	Sa	18:03	Moon ascending node
19	Su	09:48	Mercury 3.9° S of Moon
19	Su	17:21	Moon North declination: 24.1° N
20	Mo	23:03	New Moon
21	Tu	03:03	Saturn opposition
22	We	20:29	Mercury elongation: 20.1° W
22	We	04:20	Regulus 4.1° S of Moon
25	Sa	10:24	Moon perigee: 368400 km
27	Mo	18:02	First quarter
30	The	07:16	Moon 6.2° N of Aldebaran
31	Fr	15:02	Moon descending node

*computing, are very different from those given in astrology tables.)*

The Earth is at its farthest point from the Sun, called aphelion, on 4 July at 20:29 hours IST.

The Sun is in Gemini, the Twins (*Mithuna*) as the month begins, and moves to Cancer, the Crab (*Karka*) on 20 July.

Mercury remains in Gemini throughout the month.

Venus is in Taurus, the Bull (*Vrishabha*).

Mars is in Pisces, the Fish (*Meena*) on the 1<sup>st</sup> of the month. It travels to Cetus, the Whale, on 8 July and then to Pisces on 27 July.

Jupiter is in Sagittarius, the Archer (*Dhanu*).

Saturn is in Capricornus, the Sea Goat (*Makar*) and moves to Sagittarius on 3 July.

## March of the Moon

On 2 July and 30 July the Moon passes about 6° from Aldebaran (*Rohini*). On 6 July it is just about 2° from Jupiter and passes about 3.5° from Saturn. On Sunday 12 July it will pass within 2.2° of Mars.

The morning of 17 July offers a beautiful sight with the Crescent Moon north of Aldebaran and Venus right below them. On 19 July one can easily identify Mercury to the south of the thin lunar crescent. The Moon reappears above the western horizon on 21 July.

On 22 July it will be below Regulus (*Magha*) at dusk. On 27 July the 40% illuminated Moon will pass close to Spica (*Chitra*); and on 29 July it will occult a 4th magnitude star,  $\nu$ Scorpii (see below).

## Occultation of Jabba by the Moon

Occultation of a 4<sup>th</sup> magnitude star, Jabba ( $\nu$ Scorpii or  $\nu$  Scorpii), in the constellation

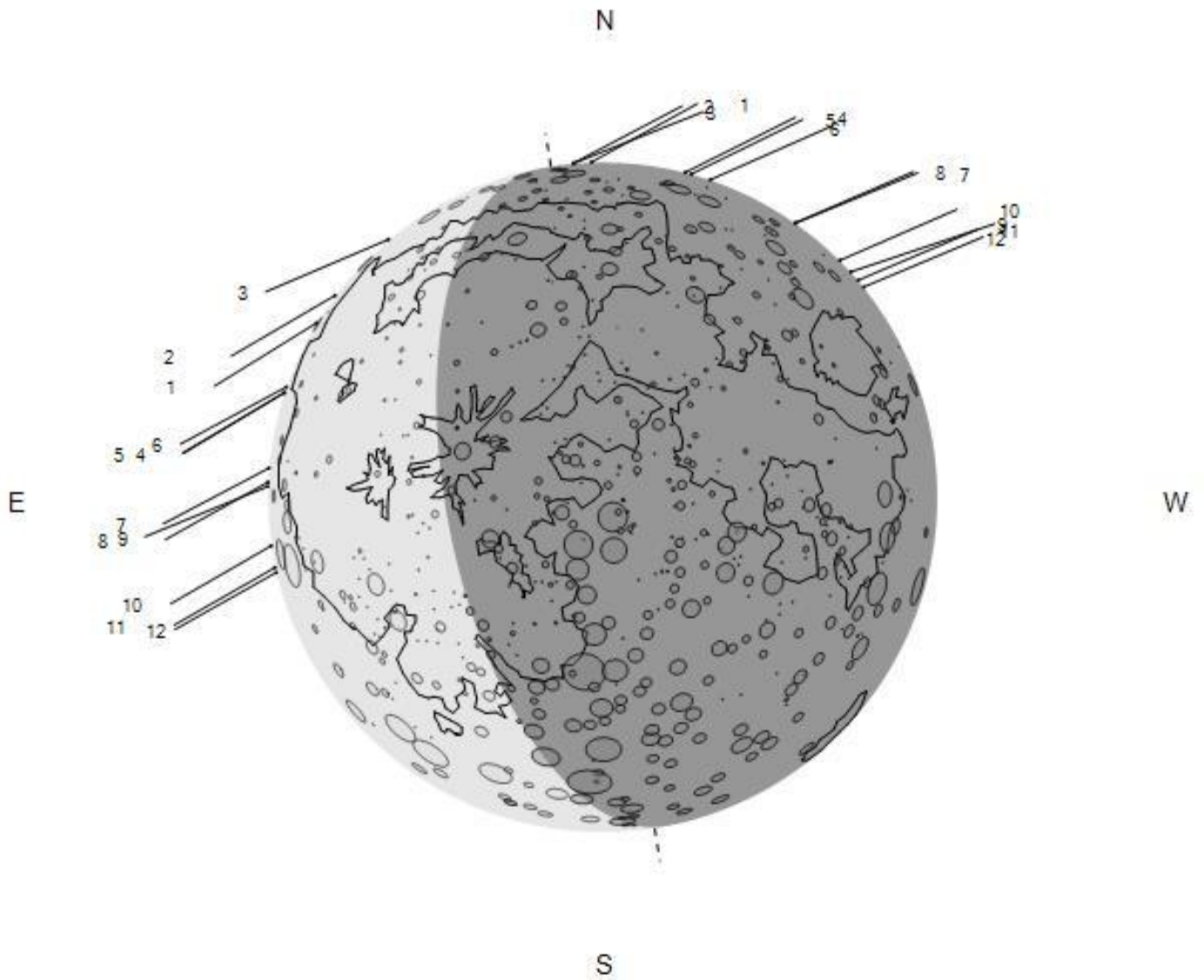
Scorpio, by the Moon will take place on 29 July. The event can be seen from the southern half of India.

Disappearance (D) and reappearance (R) times (in IST) of the star are given below.



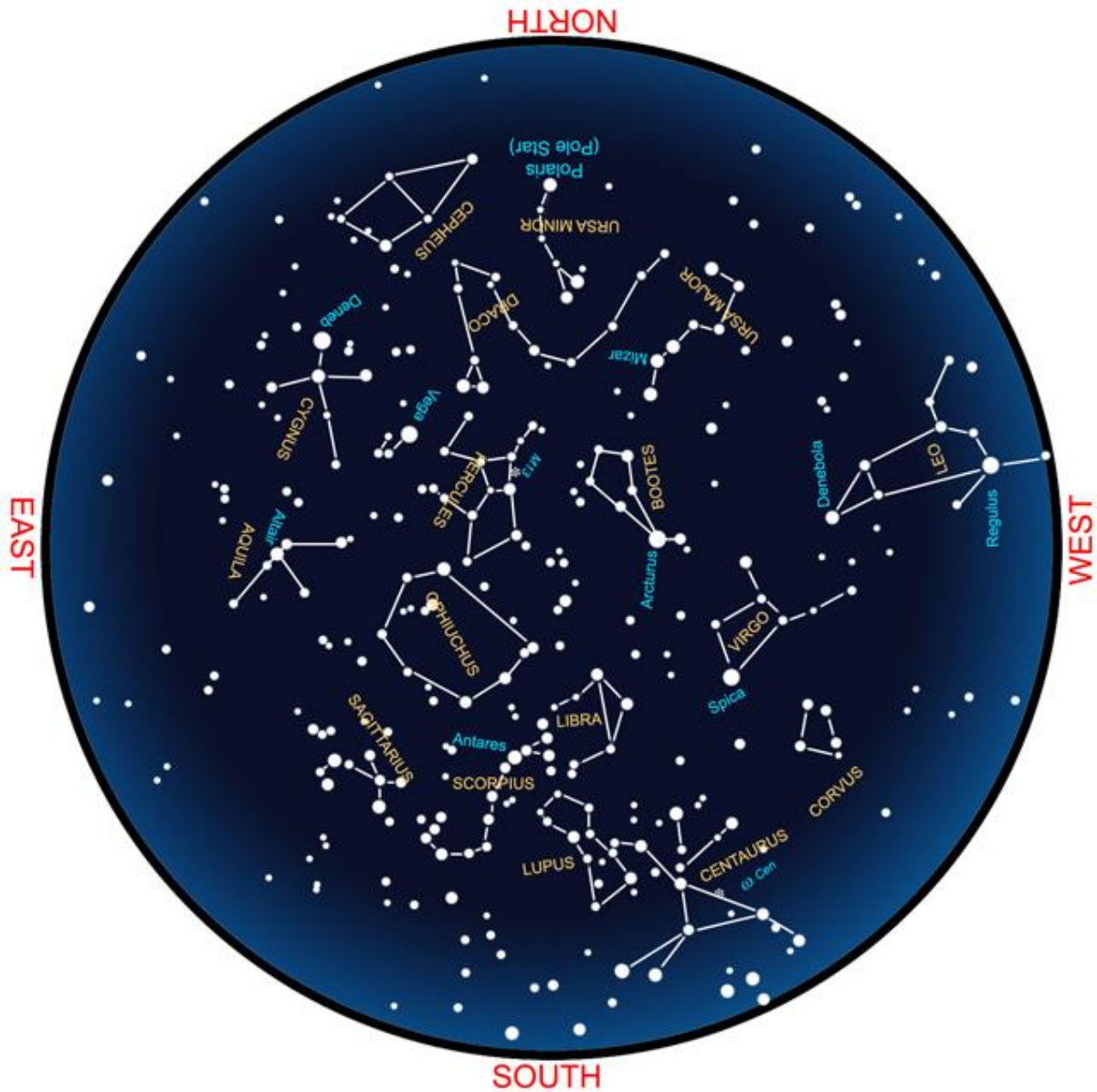
The curves of occultation D or R (disappearance or reappearance) at moonrise or moonset. The white continuous line depicts the northern and southern occultation limits (graze paths), where the event occurs during the night. The blue continuous line depicts the occultation limits, with the event in twilight; The red dotted line traces occultation limits with the event taking place in daylight.

No	City	D (IST)	Moon Alt	R (IST)	Moon Alt
1	Bhuj	21:12:47	46	21:55:20	43
2	Ahmedabad	21:24:16	45	22:00:23	41
3	Kolkata	22:09:18	31	22:32:49	27
4	Mumbai	21:16:45	49	22:18:02	42
5	Pune	21:19:53	49	22:21:30	41
6	Hyderabad	21:33:18	46	22:34:34	37
7	Chennai	21:35:19	49	22:50:06	35
8	Bengaluru	21:27:28	51	22:44:52	38
9	Port Blair	22:03:30	35	23:13:51	20
10	Kochi	21:23:17	55	22:48:12	41
11	Trivandrum	21:25:33	56	22:51:57	40
12	K'kumari	21:27:27	55	22:53:50	39



The numbers on the Moon map above are the serial numbers of the stations given in the table. More information will be available at <https://diyastronomy.wordpress.com/>. The data and figures have been generated using occult 4 software by Dave Herald, for International Occultation Timing Association (IOTA).

**Sky map for the month of July, drawn for mid northern latitudes,  
to be used around 9:30 pm local time**



**These pages are contributed by:**

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