





# ASTRONOMICAL DIARY

PREPARED BY ASTRONOMICAL PUBLICATION AND PLANETARIUM UNIT, SPACE SCIENCE AND ASTRONOMY SECTION

## ASTRONOMICAL EVENTS, MARCH 2025

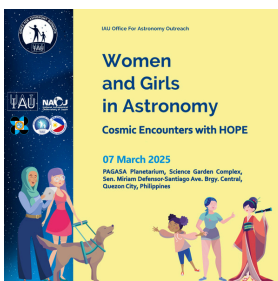
DATE	EVENT	TIME
01-03	Planetary alignment of Saturn, Neptune, Mercury, Venus, Uranus, Jupiter, and Mars	---
01	Conjunction of the Moon and Mercury	12:02 p.m.
01	Close approach of the Moon and Mercury	12:22 p.m.
02	Moon at Perigee (Distance = 362,048.406 km)	05:21 a.m.
02	Conjunction of the Moon and Venus	07:19 a.m.
06	Close approach of the Moon and Jupiter	06:03 p.m.
06	Conjunction of the Moon and Jupiter	07:31 p.m.
07	Women and Girls in Astronomy	---
07	Mercury at dichotomy	05:00 p.m.
07	Mercury at highest altitude in evening sky	---
08	Mercury at greatest elongation east	02:09 p.m.
09	Conjunction of Waxing Gibbous Moon and Mars	08:27 a.m.
09	Close approach of Waxing Gibbous Moon and Mars	08:57 a.m.
14	$\gamma$ -Normid meteor shower (ZHR = 6)	---
18	Moon at Apogee (Distance = 405,703.435 km)	12:37 a.m.
20	March Equinox	05:01 p.m.
30	Moon at Perigee (Distance = 358,232.232 km)	01:25 a.m.

## PHASES OF THE MOON

	<b>First Quarter</b> Mar 07 12:32 a.m.
	<b>Full Moon</b> Mar 14 02:55 p.m.
	<b>Last Quarter</b> Mar 22 07:29 p.m.
	<b>New Moon</b> Mar 29 06:58 p.m.

## RISE AND SET TIMES OF PLANETS

DATE	MERCURY		VENUS		MARS		JUPITER		SATURN	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
Mar 01	07:05 am	07:08 pm	07:36 am	08:00 pm	02:04 pm	03:09 am*	11:36 am	12:31 am*	06:52 am	06:44 pm
Mar 11	06:59 am	07:14 pm	06:47 am	07:13 pm	01:30 pm	02:33 am*	11:01 am	11:52 pm	06:17 am	06:09 pm
Mar 21	06:15 am	06:29 pm	05:50 am	06:11 pm	01:00 pm	02:02 am*	10:26 am	11:18 pm	05:42 am	05:35 pm
Mar 31	05:13 am	05:18 pm	04:54 am	05:09 pm	12:34 pm	01:34 am*	09:53 am	10:45 pm	05:06 am	05:01 pm



## WOMEN AND GIRLS IN ASTRONOMY: COSMIC ENCOUNTERS WITH HOPE

An IAU Outreach Global Project

The Women and Girls in Astronomy is an outreach global project organized by the International Astronomical Union (IAU) to provide a venue for acknowledging women's contributions to scientific progress. Additionally, it encourages and supports the study of Astronomy for all genders, both on and off the spectrum.

This year, the Sun will reach its peak activity, offering the Earth's citizen a breathtaking display of solar phenomena. To celebrate this Solar System-wide event, this year's Women and Girls in Astronomy events will focus on the #WomenOfSolarPhysics.

Notes:

[1] All times displayed are in Philippine Standard Time (PhST); [2] \*following day

"tracking the sky...helping the country"

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# Stars and Constellations

In **March**, the night sky displays a wide range of astonishing constellations – **Cancer**, **Canis Minor**, and **Lynx** are in the northern celestial hemisphere, while **Carina**, **Pyxis**, **Vela**, and **Volans** lie in the south. The outstanding constellations are positioned directly overhead at 09:00 p.m. on 15 March 2025 as shown in Figure 1. [1,2]

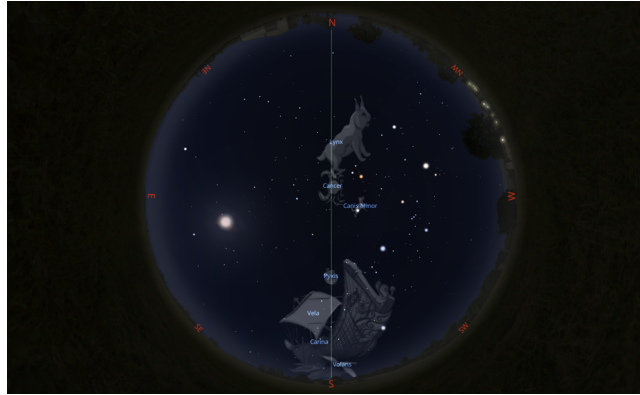


Figure 1: The view of the night sky featuring the prominent March constellations at 09:00 p.m. on 15 March 2025 using the Stellarium software.

**Lynx** is a relatively vague and faint constellation but the largest in March. Its name is derived from the lynx, a wild cat with exceptional vision since the stars are so dim that only a lynx’s keen eyes could spot them. The brightest star, Alpha Lyncis, is a red giant with an apparent magnitude of 3.13, situated approximately 203 light-years away. Lynx may be lacking in bright stars, but its variety of fascinating deep-sky objects makes up for it. It contains the Intergalactic Wanderer (NGC 2419), an intriguing globular cluster named after its considerable distance from the Galactic Center, a blue compact dwarf galaxy, NGC 2537 or the Bear’s Paw Galaxy [Figure 2a], and the spiral galaxy NGC 2683, also known as the UFO Galaxy [Figure 2b] due to its shape. [2,3]

**Canis Minor**, also referred to as the Lesser Dog, is a small but easily identifiable constellation in the night sky because of its brightest star, Procyon. Procyon is the eighth brightest star, shining brightly at magnitude 0.34, and is one of the closest star neighbors, located around 11.46 light-years from Earth. It is part of the two prominent winter asterisms, the Winter Triangle and the Winter Hexagon [Figure 2c]. Though the constellation is known for its star, Canis Minor also boasts some captivating deep-sky attractions, including the spiral galaxy NGC 2485 and the galaxy pair NGC 2402, which require a large telescope to observe due to their faintness. [2,4]

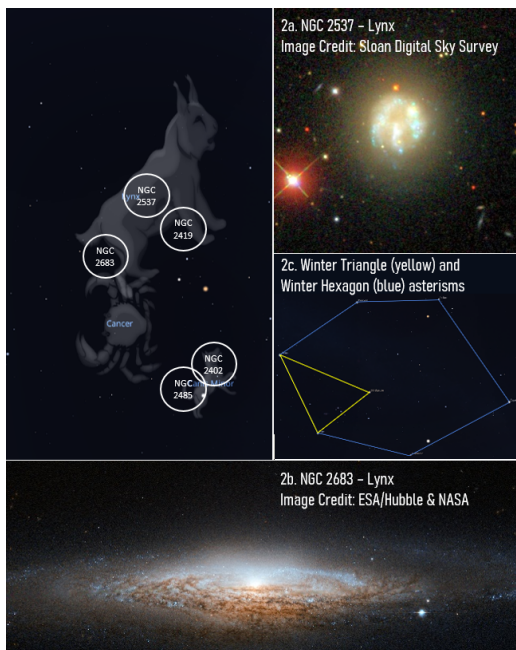


Figure 2: The Northern Constellations

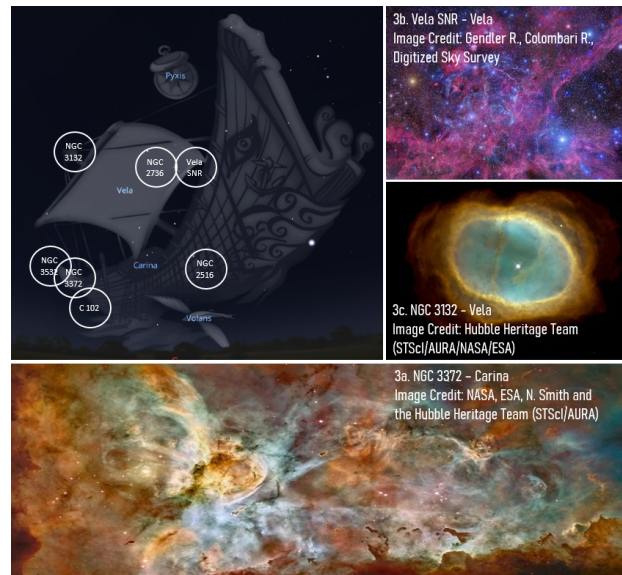


Figure 3: The Southern Constellations

**Carina** and **Vela** are the largest southern constellations in March. They, along with the Puppis constellation, were once part of a much larger constellation named the Argo Navis, which symbolized the ship of the Argonauts in Greek mythology. Argo Navis was divided by the French astronomer Nicolas Louis de Lacaille into three smaller constellations to make star mapping and navigation more manageable. [2,5]

**Carina**, representing the keel of the ship, is a circumpolar constellation and, thus, is visible year-round in the southern sky. The constellation houses the second brightest star in the sky, Canopus, a white supergiant with a magnitude of -0.74, around 310 light-years away. Another notable and best-known variable star in the sky is Eta Carinae, a binary star system with one star being one of the most massive and luminous stars in the Milky Way. Carina is a wealth of remarkable deep-sky objects. It contains one of the largest diffuse nebulae in the sky, the Carina Nebula (NGC 3372) [Figure 3a] which is home to Eta Carinae. Numerous open clusters are also located in Carina, such as the Theta Carinae Cluster, also known as the Southern Pleiades, the Wishing Well Cluster (NGC 3532), and the Diamond Cluster (NGC 2516) [2,5]

**Vela**, symbolizing the sails of the ship, is a relatively rich constellation in terms of celestial objects of scientific interest. Gamma Velorum or Suhail, its brightest star, is an intricate multiple-star, and its major component is a Wolf-Rayet star, a unique kind of star with a powerful stellar wind and exceptional luminosity. Vela offers a variety of interesting deep-sky treasures to observe. One of the most celebrated is the Vela Supernova Remnant [Figure 3b], an expanding shell from a supernova that happened around 11,000-12,300 years ago. The Vela Pulsar, found at the center of the Vela Supernova Remnant, is one of the nearest pulsars to Earth. Vela also hosts several nebulae, like, the Eight-Burst Nebula or the Southern Ring Nebula (NGC 3132) [Figure 3c], and the Pencil Nebula (NGC 2736) [2,6]

## Planetary Location

**Jupiter** and **Mars** remain as evening objects throughout March. **Mercury** will be visible in the first two weeks, just after sunset, appearing very low on the western horizon. **Venus** will also be observable as dusk fades to darkness but slowly dives into the western horizon within the first two weeks and will emerge in the eastern sky, just before sunrise, becoming a “morning star” in the last few days of the month. On the other hand, **Saturn** will not be observable due to its proximity to the Sun. [1,7]

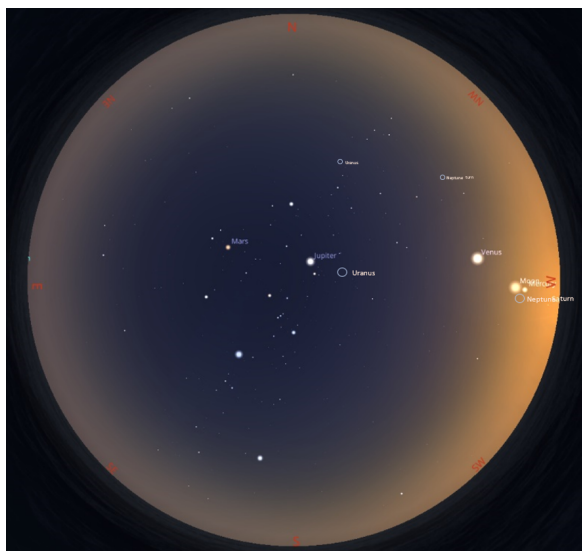


Figure 4: The view of the night sky showing the full planetary alignment of seven (7) planets on 01 March at 06:30 p.m. using Stellarium.

The dusk sky of March will still feature the full planetary alignment of seven (7) planets [Figure 4] – **Saturn, Neptune, Mercury, Venus, Uranus, Jupiter, and Mars** – but will be marked by Saturn’s gradual fading out of view in the first few days, which will be followed by Neptune, Mercury, and Venus disappearing in the sky within the first two weeks of the month. Mars, Jupiter, and Venus are readily visible while Mercury and Saturn are positioned very low in the western horizon. Meanwhile, Neptune and Uranus can only be observed using a modest telescope or high-powered binoculars. It should be noted that planetary alignments are visual occurrences and do not directly affect the planet Earth. [1]

The **Moon** and **Mercury** will be in conjunction on 01 March at 12:02 p.m. with the Moon passing 23’ to the south of Mercury. The two objects will make a close approach at about the same moment, passing within 20.5 arcminutes of each other. The exact timing of these events will not be visible due to the Sun’s presence, but their close pairing can be seen sitting low over the western horizon at 06:35 p.m. on the same day [Figure 5]. [8,9]

The following day at 07:19 a.m., the **Waxing Crescent Moon** will pass 6°23’ to the south of **Venus** as they will share the same right ascension. Both objects lie in the constellation Pisces. The exact events will not be observable due to the glare of the Sun. The best time to view the pair is at 06:40 p.m. above the western horizon [Figure 6]. [10]

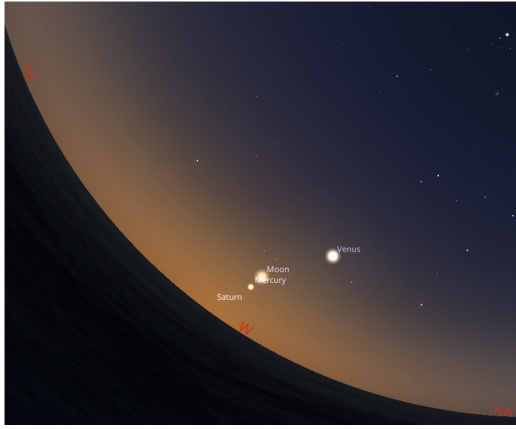


Figure 5: The view of the western sky showing the close pairing of the Moon and Mercury on 01 March at 06:35 p.m. using Stellarium.

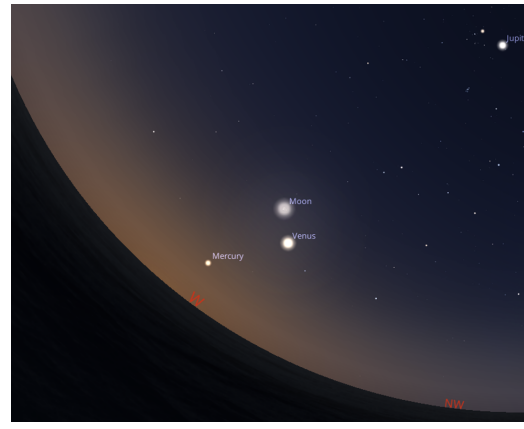


Figure 6: The view of the western sky showing the close pairing of the Waxing Crescent Moon and Venus on 02 March at 06:40 p.m. using Stellarium.

The 6-day-old **Moon** and **Jupiter**, both located among the background stars of Taurus, will be in close proximity on 06 March at 06:03 p.m., passing within  $5^{\circ}29'$  of each other. The two will be in conjunction at 07:31 p.m., separated by  $5^{\circ}33'$ . The exact occurrence of their conjunction will be visible in the night sky as shown in Figure 7, with the Moon and Jupiter shining brightly at magnitudes -11.9 and -2.3, respectively. [7,11,12]

**Mercury** will undergo **dichotomy** on 07 March, at 05:00 p.m., and will reach its highest altitude in the evening sky on the same day, with a magnitude of -0.4. Dichotomy occurs when an inferior planet such as Mercury reaches its half phase. On 08 March at 02:09 p.m., the planet will reach its greatest elongation or the greatest separation from the Sun by  $18.2^{\circ}$  in its evening apparition. [7,13,14,15]

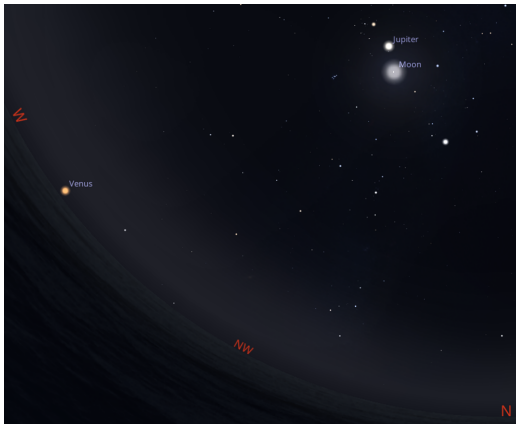


Figure 7: The view of the night sky showing the conjunction of the Moon and Jupiter on 06 March at 07:31 p.m. using Stellarium.



Figure 8: The view of the western sky showing the conjunction of the Waxing Gibbous Moon and Mars on 09 March at 06:40 p.m. using Stellarium.

On 09 March at 08:27 a.m., the **Waxing Gibbous Moon** and **Mars** will be in conjunction, with the Moon passing  $1^{\circ}40'$  to the north of Mars. Around half an hour later, the two objects will approach closely passing within  $1^{\circ}38'$  of each other. The two objects, located in the constellation Gemini, are still below the horizon at the exact occurrence of these events, so their close pairing is best viewed at 06:40 p.m. until they set in the western horizon [Figure 8]. [16,17]

All the conjunctions and near approaches mentioned between the planet and the moon, or planet to planet, will be visible enough to fit within the field of view of a telescope and can also be viewed with the naked eye or using a pair of binoculars.

## March Equinox

The **March Equinox** or **Vernal Equinox** is on **20 March** at **05:01 p.m.** This day marks the first day of spring for those in the northern hemisphere and the first day of autumn for those in the south. During equinoxes, the Sun is directly pointing over the Earth's equator, thus, creating nearly equal day and night. Also, on this day, the Sun exactly rises due east and sets due west. [18]

## Meteor Shower

The  $\gamma$ -Normid meteor shower is observable from **25 February to 28 March**, with expected peak activity on **14 March**. The view of the meteor shower may be observed once its radiant point, the constellation Norma, rises above the eastern horizon around 11:33 p.m. The radiant is highest in the sky at around 04:00 a.m. and will likely offer the most favorable viewing times shortly before dawn [Figure 9], with up to 6 meteors per hour. The Waning Gibbous Moon, in the constellation Virgo, will provide a significant interference with the meteor shower observation throughout the night. [19]



Figure 9: The view of the southern sky during the peak of the  $\gamma$ -Normid meteor shower on 14 March 2025 at 04:00 a.m. when the shower's radiant is represented by the green solid circle.

Meteor showers are observable through the naked eye, and no special equipment such as telescopes or binoculars is needed. Maximize the viewing experience by choosing a dark observation site away from the city lights under clear and moonless sky conditions.

## Solar and Lunar Eclipses

This March, eclipses will occur in some parts of the world.

On 14 March, the Earth will pass between the Sun and the Moon creating a total lunar eclipse. The Moon appears red or rusty during a total lunar eclipse, sometimes called a "blood moon", due to the Earth's shadow totally enveloping the Moon. This phenomenon will be visible in parts of the Americas, Antarctica, Alaska, north-eastern Russia, and Africa. [20]

A partial solar eclipse will occur on 29 March, where the Moon will pass in front of the Sun, partially obscuring a portion of the Sun as seen from Earth. This event will be visible from the Americas, western Russia, Europe, and Africa. [21]

Note that these eclipses will not be visible in the Philippines.

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12 February 2025

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# Calendar of Astronomical Events for March 2025

Table 1 shows a summary of the astronomical events for March 2025. All times displayed are in Philippines Standard Time (PhST).

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## References

- [1] PAGASA Special Publication No. 840; The Philippine Star Atlas 2019/Stellarium Software
- [2] C. Guide, “Constellations: A Guide to the Night Sky.” <https://www.constellation-guide.com/constellations-by-month/march-constellations/>, Last accessed on 2025-02-10, 2025.
- [3] Go Astronomy, “LYNX CONSTELLATION” <https://www.go-astronomy.com/constellations.php?Name=Lynx>, Last accessed on 2025-02-10, 2025.
- [4] Go Astronomy, “CANIS MINOR CONSTELLATION” <https://www.go-astronomy.com/constellations.php?Name=Canis%20Minor>, Last accessed on 2025-02-10, 2025.
- [5] Go Astronomy, “CARINA CONSTELLATION” <https://www.go-astronomy.com/constellations.php?Name=Carina>, Last accessed on 2025-02-10, 2025.
- [6] Go Astronomy, “VELA CONSTELLATION” <https://www.go-astronomy.com/constellations.php?Name=Vela>, Last accessed on 2025-02-10, 2025.
- [7] Multi-Interactive Computer Almanac (MICA) /, Last accessed on 2025-02-10, 2025.
- [8] D. Ford, “In-The-Sky.org Guide to the night sky: “Conjunction of the Moon and Mercury” [https://in-the-sky.org/news.php?id=20250301\\_20\\_100](https://in-the-sky.org/news.php?id=20250301_20_100), Last accessed on 2025-02-10, 2025.
- [9] D. Ford, “In-The-Sky.org Guide to the night sky: “Close approach of the Moon and Mercury” [https://in-the-sky.org/news.php?id=20250301\\_15\\_100](https://in-the-sky.org/news.php?id=20250301_15_100), Last accessed on 2025-02-10, 2025.
- [10] D. Ford, “In-The-Sky.org Guide to the night sky: “Conjunction of the Moon and Venus” [https://in-the-sky.org/news.php?id=20250301\\_20\\_101](https://in-the-sky.org/news.php?id=20250301_20_101), Last accessed on 2025-02-10, 2025.
- [11] D. Ford, “In-The-Sky.org Guide to the night sky: “Close approach of the Moon and Jupiter” [https://in-the-sky.org/news.php?id=20250306\\_15\\_100](https://in-the-sky.org/news.php?id=20250306_15_100), Last accessed on 2025-02-10, 2025.
- [12] D. Ford, “In-The-Sky.org Guide to the night sky: “Conjunction of the Moon and Jupiter” [https://in-the-sky.org/news.php?id=20250306\\_20\\_100](https://in-the-sky.org/news.php?id=20250306_20_100), Last accessed on 2025-02-10, 2025.
- [13] D. Ford, “In-The-Sky.org Guide to the night sky: “Mercury at dichotomy” [https://in-the-sky.org/news.php?id=20250307\\_11\\_100](https://in-the-sky.org/news.php?id=20250307_11_100), Last accessed on 2025-02-10, 2025.
- [14] D. Ford, “In-The-Sky.org Guide to the night sky: “Mercury at highest altitude in evening sky” [https://in-the-sky.org/news.php?id=20250308\\_11\\_100](https://in-the-sky.org/news.php?id=20250308_11_100), Last accessed on 2025-02-10, 2025.
- [15] D. Ford, “In-The-Sky.org Guide to the night sky: “Mercury at greatest elongation east” [https://in-the-sky.org/news.php?id=20250308\\_11\\_101](https://in-the-sky.org/news.php?id=20250308_11_101), Last accessed on 2025-02-10, 2025.
- [16] D. Ford, “In-The-Sky.org Guide to the night sky: “Conjunction of the Moon and Mars” [https://in-the-sky.org/news.php?id=20250309\\_20\\_100](https://in-the-sky.org/news.php?id=20250309_20_100), Last accessed on 2025-02-10, 2025.
- [17] D. Ford, “In-The-Sky.org Guide to the night sky: “Close approach of the Moon and Venus” [https://in-the-sky.org/news.php?id=20250309\\_15\\_100](https://in-the-sky.org/news.php?id=20250309_15_100), Last accessed on 2025-02-10, 2025.
- [18] D. Ford, “In-The-Sky.org Guide to the night sky: “March equinox” [https://in-the-sky.org/news.php?id=20250320\\_07\\_100](https://in-the-sky.org/news.php?id=20250320_07_100), Last accessed on 2025-02-10, 2025.
- [19] D. Ford, “In-The-Sky.org Guide to the night sky: “ $\gamma$ -Normid meteor shower 2025” [https://in-the-sky.org/news.php?id=20250314\\_10\\_100](https://in-the-sky.org/news.php?id=20250314_10_100), Last accessed on 2025-02-10, 2025.
- [20] D. Ford, “In-The-Sky.org Guide to the night sky: “Total lunar eclipse” [https://in-the-sky.org/news.php?id=20250314\\_09\\_100](https://in-the-sky.org/news.php?id=20250314_09_100), Last accessed on 2025-02-10, 2025.
- [21] D. Ford, “In-The-Sky.org Guide to the night sky: “Partial solar eclipse” [https://in-the-sky.org/news.php?id=20250329\\_09\\_100](https://in-the-sky.org/news.php?id=20250329_09_100), Last accessed on 2025-02-10, 2025.