

PRESS RELEASE MARCH 2023





ASTRONOMICAL DIARY

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

ASTRONOMICAL EVENTS, MARCH 2023

DATE	EVENT	TIME
2	Conjunction of Venus and Jupiter	---
4	Moon at Apogee (Distance = 405,836.432 km)	02:00 a.m.
15	γ -Normids	04:00 a.m.
19	Moon at Perigee (Distance = 362,778.210 km)	11:12 p.m.
21	March Equinox	05:24 a.m.
24	Close Approach of Moon and Venus	---
28	Close Approach of Moon and Mars	---
31	Moon at Apogee (Distance = 404,853.478 km)	07:17 p.m.

PHASES OF THE MOON

	Full Moon Mar 07 08:40 PM
	Last Quarter Mar 15 10:08 AM
	New Moon Mar 22 01:23 AM
	First Quarter Mar 29 10:32 AM

RISE AND SET TIMES OF PLANETS

DATE	MERCURY		VENUS		MARS		JUPITER		SATURN	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
Mar 01	05:34 AM	05:09 PM	07:56 AM	08:09 PM	12:02 PM	*01:05 AM	08:01 AM	08:12 PM	05:41 AM	05:17 PM
Mar 11	05:54 AM	05:43 PM	07:56 AM	08:19 PM	11:41 AM	*12:45 AM	07:29 AM	07:42 PM	05:06 AM	04:42 PM
Mar 21	06:15 AM	06:23 PM	07:56 AM	08:30 PM	11:22 AM	*12:26 AM	06:58 AM	07:12 PM	04:30 AM	04:08 PM
Mar 31	06:37 AM	07:04 PM	07:58 AM	08:42 PM	11:04 AM	*12:07 AM	06:26 AM	06:43 PM	03:55 AM	03:33 PM



UFO GALAXY (NGC 2683)

ASTRONOMY PICTURE OF THE MONTH

This image of NGC 2683 commonly known as the UFO Galaxy is taken using Hubble's Advanced Camera for Surveys using two adjacent fields observed through the visible and infrared lights. With a field view of approximately 6.5 by 3.3 minutes, the narrow strip in the image that appears blurry due to Hubble's detector was patched up through ground-based telescope images.

Discovered at the Northern constellation of Lynx by William Herschel, a famous astronomer, the NGC 2683 looks like the shape of a classic science fiction spaceship seen in movies and earned its name as the UFO Galaxy.

Image Credit: ESA/Hubble & NASA

Notes:

[1] * following day

[2] All times displayed are in Philippine Standard Time (PhST)

"tracking the sky...helping the country"

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Stars and Constellations

The constellations best observed in March are **Cancer**, **Canis Minor**, **Carina**, **Lynx**, **Pyxis**, **Vela**, and **Volans**. Cancer, Canis Minor, and Lynx are located in the northern hemisphere, while Carina, Pyxis, Vela, and Volans lie in the southern sky. The well-known deep sky object Messier 44 (M44), also known as the Beehive Cluster or Praesepe (the Manger); the Eight-Burst Nebula, the Theta Carinae Cluster, the Wishing Well Cluster, and the Carina Nebula are best viewed in the March night sky. Figure 1 illustrates the March constellations located overhead at 09:00 p.m. [1].



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

The largest of the March constellations is Lynx. Positioned between the prominent constellations Ursa Major and Auriga, the constellation Lynx appears faint to the eyes of its observer since it consists of stars no brighter than 3.0 magnitude. It also contains several notable deep-sky objects, like the most distant globular cluster in our galaxy, NGC 2419, also known as the Intergalactic Wanderer, the unbarred spiral galaxy NGC 2683 (UFO Galaxy), and the compact dwarf galaxy NGC 2537 (Bear's Paw Galaxy) [2].

Cancer, the celestial crab, is a little bit smaller and likewise fairly faint. However, due to the presence of two prominent deep-sky objects, Cancer is a favorite subject for astronomers. The open cluster Praesepe, commonly known as the Beehive Cluster (Messier 44), the open cluster Messier 67, and the interacting spiral galaxies NGC 2535 and NGC 2536 are just a few of the well-known deep-sky objects [2].

Canis Minor is represented as one of the dogs of Orion and the home of Procyon, one of the brightest stars in the night sky. It is also a member of the asterism Winter Triangle, together with Sirius of Canis Major and Betelgeuse of Orion [2].

Planetary Location

Mercury is not readily observable due to its proximity to the Sun [3].

Venus is visible throughout the entire month. On 15 March at around 06:19 p.m., Venus is located 28° above the horizon and will then sink towards the western horizon at 08:18 p.m. On 24 March at 06:27 p.m., the Moon and Venus will make a close approach, as the 2.9-day-old Moon passes $0^\circ 06'$ to the south of Venus (Figure 2) [4].

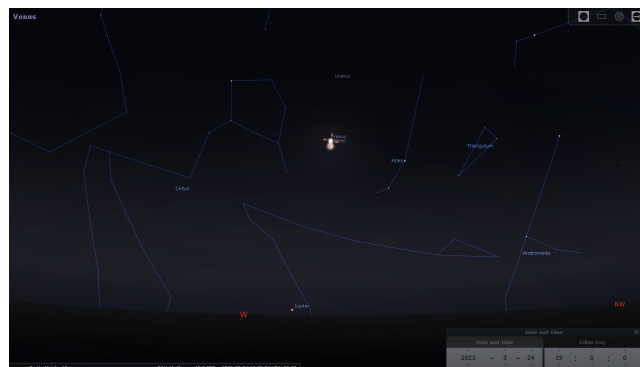


Figure 2: The view of the western sky on 24 March at 07:00 p.m. showing the position of the Moon and Venus, using the Stellarium software

Mars and the Moon, will make a close approach on 28 March, passing within $2^{\circ}17'$ of each other. The Moon will be 7 days old, with a magnitude of -11.7, and Mars will be 0.9. Both celestial objects will lie in the constellation Gemini [5].

Jupiter will soon pass behind the Sun at solar conjunction and will be visible in the first few days of the month. At 06:19 p.m., it is visible 16° above the western horizon. It begins to descend and set over the western horizon at 07:28 p.m. and will continuously dive towards the horizon as the day progresses.

On 02 March at 01:05 p.m., planets **Venus** and **Jupiter** will share the same right ascension, with Venus passing $0^{\circ}32'$ to the north of Jupiter. The exact instance of the conjunction is not directly visible since Venus and Jupiter are still below the horizon. However, the view of the close pairing among the background stars of the constellation Pieces can be observed on the western horizon as soon as the sun sets (Figure 3) [6].

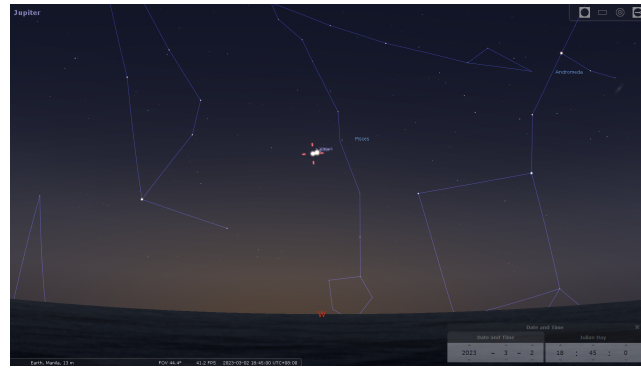


Figure 3: The view of the western sky on 02 March at 06:45 p.m. showing the position of Jupiter and Venus, using the Stellarium software

Due to the Sun's glare, **Saturn** is not visible at the beginning but it advances from the middle until the end of the month. Saturn will be visible in the morning sky on 31 March, rising at 03:52 a.m. and reaching an altitude of 20° above the eastern horizon before disappearing from view when dawn breaks at 05:22 a.m. [3].

Meteor Shower

The γ -**Normid Meteor Shower** is observable from 25 February to 28 March, with an expected peak of activity on 15 March. The view of the meteor shower may be observed as soon as the constellation Norma, the shower's radiant rises over the horizon around 11:31 p.m. The radiant is highest in the sky at around 4:00 a.m. (Figure 4). Thus, the shower will produce its best display shortly before dawn, with up to six (6) observable meteors per hour. The value mentioned assumes that the observer is in a clear, dark, moonless sky condition and that the radiant is highest in the sky. The shower will remain active until before sunrise. The presence of the waning gibbous Moon in the constellation Ophiuchus presents minimal interference [7].

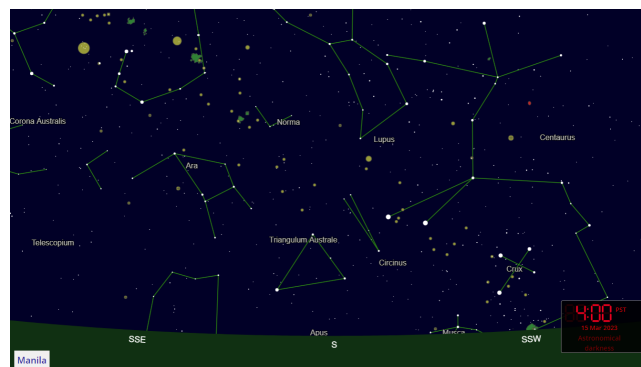


Figure 4: The view of the southern sky during the peak of γ -Normids on 15 March 2023 at 4:00 a.m when the shower's radiant is represented by the green solid circle.

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.

March Equinox

The **March Equinox**, or **Vernal Equinox** is on 21 March at 5:24 a.m. The March Equinox marks the first day of Spring for those in the northern hemisphere and the first day of Autumn for those in the southern hemisphere. During equinoxes, the Sun is directly pointing over the Earth's equator, thus creating nearly equal day and night. And also, on this day, the Sun exactly rises due east and exactly sets due west [8,9].

Calendar of Astronomical Events for March 2023

Table 1 shows a summary of the astronomical events for the month of March 2023. All times displayed are in Philippines Standard Time (PhST).

Table 1: The summary of astronomical events for the month of March 2023

Date	Event	Time
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27 February 2023

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References

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