

PRESS RELEASE MAY 2025

ASTRONOMICAL DIARY

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

ASTRONOMICAL EVENTS, MAY 2025

DATE	EVENT	TIME
01-31	Dark and Ouiet Skies Awareness Month	
01	Close approach of Waxing Crescent Moon and Jupiter	12:54 a.m.
01	Conjunction of Waxing Crescent Moon and Jupiter	01:33 a.m.
04	Conjunction of the Moon and Mars	07:12 a.m.
04	Close approach of the Moon and Mars	08:26 a.m.
05	η-Aquariid meteor shower (ZHR = 40)	
08	η-Lyrid meteor shower (ZHR = 3)	
11	Moon at Apogee (Distance = 406,203.881 km)	08:47 a.m.
22	Close approach of the Moon and Saturn	11:44 p.m.
23	Conjunction of the Moon and Saturn	02:00 a.m.
24	Close approach of the Moon and Venus	04:38 a.m.
24	Conjunction of the Moon and Venus	07:51 a.m.
26	Moon at Perigee (Distance = 359,122.259 km)	09:34 a.m.
28	Conjunction of Waxing Crescent Moon and Jupiter	09:12 p.m.

RISE AND SET TIMES OF PLANETS

DATE	MERCURY		VENUS		MARS		JUPITER		SATURN	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
May 01	04:15 am	04:27 pm	03:15 am	03:21 pm	11:28 am	12:19 am*	08:14 am	09:08 pm	03:16 am	03:13 pm
May 11	04:25 am	04:52 pm	03:01 am	03:10 pm	11:09 am	11:55 pm	07:43 am	08:38 pm	02:40 am	02:38 pm
May 21	04:49 am	05:32 pm	02:50 am	03:04 pm	10:52 am	11:34 pm	07:13 am	08:08 pm	02:03 am	02:02 pm
May 31	05:30 am	06:28 pm	02:43 am	03:03 pm	10:35 am	11:13 pm	06:43 am	07:38 pm	01:26 am	01:26 pm



SUMMER MILKY WAY Astronomy Picture of the Month

The Summer Milky Way is best seen in dark, rural locations away from light pollution. Its prominent feature is the galactic core, a dense region teeming with stars, gas, and dust. It is home to Sagittarius A, the supermassive black hole at the center of our galaxy. This region appears rich in golden and reddish hues due to vast star-forming regions and interstellar clouds.

This image is taken during the observance of the Dark and Quiet Skies Awareness Month held in Tanay, Rizal last May 31, 2024.

Camera settings: Canon EOS 6D MII, mounted on Vixen Polarie (star tracker); ISO-8000, 10 sec. shutter speed, f/4, 44mm lens; 35 images (stacked & tracked) - No calibration images; Softwares used for pos-processing: Deep Sky Stacker-Siril-Starnet-Photoshop Image credit: Mendoza, L.P.

Notes:

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

"tracking the sky...helping the country" Science Garden Compound, Senator Miriam P. Defensor-Santiago Avenue Brgy. Central, Quezon City, Metro Manila, Philippines

Telephone Number: 8-284-0800 loc 3015, 3016, 3017 Website: https://bagong.pagasa.dost.gov.ph

PHASES OF THE MOON

		First Quarter May 04 09:52 p.m.
n.		
n.		Full Moon
n.	19. 14	May 13 12:56 a.m.
n.		
n.		Last Quarter May 20 07:59 p.m.
n.		
n.		New Moon
n.	6322	May 27 11:02 a.m.
n		

Stars and Constellations

In May, the night sky provides a magnificent show of stars and constellations. Outstanding in the northern hemisphere are Canes Venatici and Coma Berenices while in the south are Centaurus, Corvus, Crux, Musca, and Virgo. The prominent constellations are placed directly overhead at 09:00 p.m. on 15 May 2025 as shown in Figure 1. [1,2]



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

Canes Venatici, or the Cosmic Hunting Dogs, is a small constellation in the north that provides abundant beauty and knowledge. It may not be as eminent as its neighboring constellations, but Canes Venatici is home to some notable stars. Its two primary stars, Cor Caroli and Chara, are arranged in a line southeast of the famous Big Dipper's handle. Shining at magnitude 2.9, Cor Caroli is the constellation's brightest star, located around 110 light-years distant from Earth. Canes Venatici is a gold mine of galaxies, with several Messier objects, including the Whirlpool Galaxy (M51), and the Sunflower Galaxy (M63) [Figure 2a]. Other remarkable galaxies are the Whale Galaxy (NGC 4631) [Figure 2b] and the Fishhook Galaxy (NGC 4657). [2,3]

Coma Berenices is a small and quite dim constellation that is home to some noteworthy stars and fascinating deep-sky objects making it an interest to both amateur and professional astronomers. Though no stars above the fourth magnitude are present, its brightest is Beta Comae Berenices with an apparent magnitude of 4.26, Coma Berenices is rich in deep-sky attractions. These include the Needle Galaxy (NGC 4565) [Figure 2c], the Umbrella Galaxy (NGC 4651), the famous Black Eye Galaxy (M64), and the Mice Galaxy (NGC 4676). [2,4]



Figure 2: The Northern Constellations

Figure 3: The Southern Constellations

Centaurus and **Crux** are two renowned constellations readily seen in the night sky from many southern places.

Centaurus is among the largest and most spectacular constellations in the southern hemisphere, containing the most stars that are visible to the unaided eye. The brightest star in the constellation, Alpha Centauri or Rigel Centauri, is the third brightest in the night sky, with an apparent magnitude of -0.27. Also part of Centaurus is Beta Centauri, also known as Hadar, the eleventh-brightest star in the sky, which is remarkable due to its striking blue-white color. These two stars are referred to as the Southern Pointers since they point towards the Southern Cross or Crux constellation. A multitude of observation targets are available in Centaurus, including deep-sky objects like galaxies and star clusters. Omega Centauri (NGC 5139), the brightest globular cluster in the sky and the Milky Way's largest and most massive globular cluster, with over 10 million stars spread across 150 light-years, is one of the noteworthy star clusters in the constellation. It also contains the Blue Planetary Nebula (NGC 3918) [Figure 3a] and the Centaurus A Galaxy (NGC 5128) [Figure 3b]. [2,5,6]

Crux is the smallest yet among the most prominent constellations in the night sky. Its four main stars – Acrux, Mimosa, Gacrux, and Delta Crucis – form a distinctive cross-shaped asterism named the Southern Cross. The constellation is an essential navigational tool in locating the south celestial pole, by drawing an imaginary line from Gacrux to Acrux leading to the southern pole. With Crux's location within the Milky Way's bright band, a variety of captivating deep-sky treasures can be found in it. These include the Coalsack Nebula (C99), the Jewel Box Cluster (NGC 4755), and the Dragonfish Nebula [Figure 3c]. [2,7,8]

Planetary Location

Venus and **Saturn** are readily observable in the early mornings of May. Meanwhile, **Mercury** can be seen lying low in the eastern sky in the first week of the month but will eventually get lost in the brightness of the Sun, thereafter. **Jupiter** and **Mars** are still outstanding evening objects in the sky until they dive on the western horizon. [1,9,10]

The Waxing Crescent Moon and Jupiter will make a close approach on 01 May, at 12:54 a.m., passing within 5°22' of each other. About half an hour later, the two objects will be in conjunction, with the Moon passing 5°23' to the north of Jupiter. Both objects lie behind the background stars of Taurus, with the Moon shining brightly at -10.5 while Jupiter shines at -2.0. The exact timing of these events will not be visible as the objects are still below the horizon, but their close pairing can be seen at 07:00 p.m. on the same day [Figure 4]. [9,11,12]



Figure 4: The view of the northwestern sky showing the Waxing Crescent Moon and Jupiter on 01 May at 07:00 p.m. using Stellarium.



Figure 5: The view of the night sky showing the close pairing of the Moon and Mars on 04 May at 07:00 p.m. using Stellarium.

The **Moon** and **Mars** will be in conjunction on 04 May at 07:12 a.m., with the Moon passing 2°04' to the north of Mars. The two will be in close proximity at 08:26 a.m., passing within 1°58' of each other. The two objects are still below the horizon during the exact timing of these events, but the pair will be observable at 07:00 p.m. on the same day [Figure 5]. [13,14]

On 22 May, at 11:44 p.m., the **Moon** and **Saturn** will approach closely, passing within $2^{\circ}28'$ of each other. They will be in conjunction at 02:00 a.m. the next day, separated by $2^{\circ}49'$. Both objects are located among the background stars of the constellation Pisces. The exact occurrence of their conjunction will be very challenging to view as Saturn is sitting very low near the eastern horizon as shown in Figure 6, however, the pair can be seen once they are 10° above the horizon. [15,16]



Figure 6: The view of the eastern sky showing the conjunction of the Moon and Saturn on 23 May at 02:00 a.m. using Stellarium.



Figure 7: The view of the eastern sky showing the close approach of the Moon and Venus on 24 May at 04:38 a.m. using Stellarium.

The **Moon** and **Venus**, shining brightly at magnitudes -10.7 and -4.4, respectively, will make a close approach, passing within 3°32' of each other on 24 May, at 04:38 a.m. It will be followed by the Moon passing 3°59' to the north of Venus at 07:51 a.m. Their close approach can be seen on the eastern horizon as shown in Figure 7, however, their conjunction, occurring during daytime, will not be observable. [17,18]

The Waxing Crescent Moon and Jupiter will again share the same right ascension on 28 May, at 09:12 p.m., with the Moon passing 5°12' to the north of Jupiter. Both objects are located in the constellation Taurus, with the Moon shining brightly at magnitude -9.0 and Jupiter at -1.9. The two objects are already below the horizon at the exact timing of their conjunction but the pair can be observed in the western horizon at 07:00 p.m. [Figure 8]. [9,19]

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.



Figure 8: The view of the western sky showing the close pairing of the Waxing Crescent Moon and Jupiter on 28 May at 07:00 p.m. using Stellarium.

Meteor Shower

The η -Aquariid meteor shower is an annual meteor shower observable from 19 April to 28 May, with its peak activity on 05 May. It is estimated to generate 40 meteors per hour if observed in a clear dark moonless location. Comet 1P/Halley is the parent body responsible for the meteor shower's occurrence. The view of the shower can be enjoyed once it's radiant, which is located in the constellation Aquarius, rises above the eastern horizon around 01:30 a.m. The radiant point will be at its highest in the sky at 08:00 a.m., so the shower will be best seen just before sunrise [Figure 9]. The Moon will be around its first quarter phase; however, it will set at 01:54 a.m. and will not interfere, afterward, with the meteor observation. [20,21]



Figure 9: The view of the eastern sky during the peak of the η -Aquariid meteor shower on 05 May 2025 at 04:00 a.m. when the shower's radiant is represented by the green solid circle.



Figure 10: The view of the north northwestern sky during the peak of the η -Lyrid meteor shower on 08 May 2025 at 04:00 a.m. when the shower's radiant is represented by the green solid circle.

Another meteor shower observable this month is η -Lyrids, a meteor shower active from 03-14 May, peaking on 08 May. During its peak, η -Lyrids is expected to produce 3 meteors per hour. The view of the meteor shower may be observed as soon as the shower's radiant, the constellation Lyra, rises above the eastern horizon around 08:58 p.m. and remains active until dawn breaks. The radiant point is highest in the sky at 04:00 a.m. producing its best display shortly before dawn as shown in Figure 10. The shower will peak near its full moon phase; thus, moonlight will present significant interference in meteor watching. [22]

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.

Calendar of Astronomical Events for May 2025

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

Date	Event	Time
01-31	Dark and Quiet Skies Awareness Month	
01	Close approach of Waxing Crescent Moon and Jupiter	12:54 a.m.
01	Conjunction of Waxing Crescent Moon and Jupiter	01:33 a.m.
04	Conjunction of the Moon and Mars	07:12 a.m.
04	Close approach of the Moon and Mars	08:26 a.m.
05	η -Aquariid meteor shower (ZHR = 40)	
08	η -Lyrid meteor shower (ZHR = 3)	
11	Moon at Apogee (Distance = $406,203.881$ km)	08:47 a.m.
22	Close approach of the Moon and Saturn	11:44 p.m.
23	Conjunction of the Moon and Saturn	02:00 a.m.
24	Close approach of the Moon and Venus	04:38 a.m.
24	Conjunction of the Moon and Venus	07:51 a.m.
26	Moon at Perigee (Distance = $359,122.259$ km)	09:34 a.m.
28	Conjunction of Waxing Crescent Moon and Jupiter	09:12 p.m.

Table 1: The summary of astronomical events for May 2025

Original Signed:

Ms. SHARON JULIET M. ARRUEJO OIC, RDTD

04 April 2025

For more information, call or email:

Ms. MA. ROSARIO C. RAMOS Chief, SSAS-RDTD PAGASA-DOST Quezon City Trunkline: 8284-0800 local 3015, 3016, 3017 Email address: astronomy@pagasa.dost.gov.ph

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/may-constellations/, Last accessed on 2025-04-03, 2025.

[3] Go Astronomy, "CANES VENATICI CONSTELLATION" https://www.go-astronomy.com/constellations.php?Name=Canes% 20Venatici, Last accessed on 2025-04-03, 2025.

[4] Go Astronomy, "COMA BERENICES CONSTELLATION" https://www.go-astronomy.com/constellations.php?Name=Coma%

20Berenices, Last accessed on 2025-04-03, 2025.

[5] Go Astronomy, "CENTAURUS CONSTELLATION" https://www.go-astronomy.com/constellations.php?Name=Centaurus, Last accessed on 2025-04-03, 2025.

[6] The Constellation Directory, "Centaurus" http://www.constellationdirectory.org/constellations/centaurus.html, Last accessed on 2025-04-03, 2025.

[7] Go Astronomy, "CRUX CONSTELLATION" https://www.go-astronomy.com/constellations.php?Name=Crux, Last accessed on 2025-04-03, 2025.

[8] The Constellation Directory, "Crux" http://www.constellationdirectory.org/constellations/crux.html, Last accessed on 2025-04-03, 2025.

[9] Multi-Interactive Computer Almanac (MICA), Last accessed on 2025-04-03, 2025.

[10] D. Ford, "In-The-Sky.org Guide to the night sky: "Objects in your sky: Planets" https://in-the-sky.org/data/planets.php, Last accessed on 2025-04-03, 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=20250430_15_100, Last accessed on 2025-04-03, 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=20250430_20_100, Last accessed on 2025-04-03, 2025.

[13] 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=20250503_20_100, Last accessed on 2025-04-03, 2025.

[14] D. Ford, "In-The-Sky.org Guide to the night sky: "Close approach of the Moon and Mars" https://in-the-sky.org/news. php?id=20250504_15_100, Last accessed on 2025-04-03, 2025.

[15] D. Ford, "In-The-Sky.org Guide to the night sky: "Close approach of the Moon and Saturn" https://in-the-sky.org/news. php?id=20250522_15_100, Last accessed on 2025-04-03, 2025.

[16] D. Ford, "In-The-Sky.org Guide to the night sky: "Conjunction of the Moon and Saturn" https://in-the-sky.org/news.php? id=20250522_20_100, Last accessed on 2025-04-03, 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=20250523_15_100, Last accessed on 2025-04-03, 2025.

[18] 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=20250523_20_100, Last accessed on 2025-04-03, 2025.

[19] 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=20250528_20_100, Last accessed on 2025-04-03, 2025.

[20] D. Ford, "In-The-Sky.org Guide to the night sky: "η-Aquariid meteor shower 2025" https://in-the-sky.org/news.php?id= 20250506_10_100, Last accessed on 2025-04-03, 2025.

[21] IMO - International Meteor Organization. "List of Meteor Showers for Observation Session" https://www.imo.net/members/ imo_showers/working_shower_list, Last accessed on 2025-04-03, 2025.

[22] D. Ford, "In-The-Sky.org Guide to the night sky: "η-Lyrid meteor shower 2025" https://in-the-sky.org/news.php?id= 20250508_10_100, Last accessed on 2025-04-03, 2025.