



# the Skyscraper

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May 2026

AMATEUR ASTRONOMICAL SOCIETY OF RHODE ISLAND \* 47 PEEPTOAD ROAD \* NORTH SCITUATE, RHODE ISLAND 02857 \* WWW.THESKYSCRAPERS.ORG



## Observing Events:

### Open Nights at Seagrave\*

May 2, CLOSED (monthly meeting)  
May 9, 9-11 PM  
May 16, 9-11 PM  
May 23, 9-11 PM  
May 30, 9-11 PM

\*Members are encouraged to attend

### Off-site Public Observing\*\*

River Bend Farm, Uxbridge, MA  
Friday, May 1, 8-9:30 PM  
PoC: Francine Jackson/Jim Hendrickson

\*\*Volunteers with telescopes, binoculars, or just a love of the night sky, are always welcome

Join us for Skyscrapers'

## May Meeting

Featuring Nicholas Deane, Project Engineer, Aerospace Life Support Systems, David Clark Company, Worcester MA

at Seagrave Memorial Observatory

Saturday, May 2, 2026

Social hour at 6:30pm, Presentation at 7:00pm

Join Zoom Meeting

<https://us06web.zoom.us/j/81775646802?pwd=W7aQTKBIObNaVZrIPTCehohE3RRgns.1>

Meeting ID: 817 7564 6802 Passcode: 451174

My name is Nick Deane and I am a project engineer in the [Aerospace Life Support Systems](#) (ALSS) department here at David Clark. The David Clark company has made many pressure suits for astronauts and pilots for a number of decades.

I will give a 45 minute PowerPoint presentation that gives a brief history of the company, an overview of our pressure suits, and walks through the challenges as an engineer when it comes to designing a spacesuit. I also try to bring an old U-2 pilot suit, so that everyone can see a spacesuit up close and ask questions.



## In This Issue:

- 2 President's Message
- 3 Skylights: May 2026
- 6 Book Review: For the Love of Mars: A Human History of the Red Planet
- 7 The Dung Beetle Problem
- 8 A Readily Visible Morning Comet in April
- 10 Observatory Nights & Star Parties
- 12 Welcome to the Artemis Generation
- 23 The Sun, Moon & Planets in May
- 26 Photo Gallery



# President's Message

by Michael Corvese

Dear Members,

I am honored to address you for the first time as the 62nd President of our organization. I hope to follow in the footsteps of those before me, and strengthen and expand Skyscrapers, Inc. during my tenure. As we embark on this new chapter together, I want to express my gratitude for the continued dedication and support I see and experience in all of our activities. Our collective efforts have built a solid foundation, and I am committed to working alongside each of you to advance our mission and achieve our goals.

Over the coming months, I look forward to engaging with you, hearing your ideas, and fostering an environment where collaboration and innovation thrive. Our vocation (I hesitate to use the word hobby) has been changing rapidly with the advent of innovative technologies that are changing the demographics of amateur astronomy. In addition, great strides have recently been made in the science of astronomy. New theories regarding dark energy, new space telescopes allowing us to see further into the past universe, and our return to the Moon with the Artemis program give us inspiration to learn the secrets of the universe. It behooves us to seriously consider these transformations and adapt our organization to thrive in an increasingly dynamic environment. There is no doubt we will face challenges, but we will also have opportunities to celebrate successes, always striving to make a positive impact within our organization and beyond.

Thank you for your trust and commitment. Let us move forward with the confidence our storied history provides, and the optimism of a long and productive future.

Sincerely,  
Michael Corvese

## New Members Welcome to Skyscrapers

Robert Costa of  
Pawtucket

Dick Lynn of Jamestown

Sean Salstrom of North  
Kingstown

The Skyscraper is published monthly by Skyscrapers, Inc. the Amateur Astronomical Society of Rhode Island. Meetings are held monthly, usually on the first or second Saturday of the month. Seagrave Memorial Observatory is open every Saturday night, weather and conditions permitting.

Submissions to The Skyscraper are always welcome. Please submit items for the newsletter by the 15th of the month to Jim Hendrickson at [hendrickson.jim@gmail.com](mailto:hendrickson.jim@gmail.com).

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# Skylights: May 2026

May 2026 gives us two full Moons, meteors from Halley's Comet, the occultation of a 5<sup>th</sup> magnitude star by the waxing crescent Moon on the same night it passes close to Venus, and much more.

by Jim Hendrickson

The nights of May are getting shorter, warmer, and filled with the scents of spring. As the chorus of peepers and wood frogs gives way to night-singing insects, observers may spot a few bats flying overhead during twilight.

As twilight pushes well into the 9:00pm hour, early evening observers will more often find themselves under the sky into the late evening, or even past midnight.

## The Sun

Our first day with a minimum of 14 hours of daylight is the 1st. Daylight remains longer than 14 hours through August 11.

The Equation of Time reaches a local maximum on the 14th, with the Sun ahead of Mean Solar Time by 3:40 minutes.

The Sun moves into Taurus on the morning of the 14th, just as Mercury passes behind it. The Pleiades are in conjunction on the 19th, and Aldebaran on the 31st.

The 17th will have the first of 80 sunsets in the 8:00pm hour, lasting through the 4th of August.

## The Moon

We have two full Moons in May, the first, the Flower Moon, occurs at 1:23pm EDT on the 1st, in Libra. Watch the Moon rise at 8:09pm, 25 minutes past sunset. It transits at 12:59am on the 2nd, at an elevation of 25.8° over the southern horizon, and sets at 5:41am, within just one minute of sunrise.

The 94.2% waning gibbous is close to Antares ( $\alpha$  Scorpii) on the 3rd, when the pair are only 1° apart just after Moonrise.

The Moon reaches its last quarter phase at 5:10pm on the 9th, in Capricornus.

An observing challenge: The 16.6% waning crescent Moon occults 2 Pallas just after moonrise on the 13th. The egress from the dark limb of the Moon occurs at 4:13am. A

reasonably large telescope with high magnification will be needed to see the 10.2 magnitude asteroid through a brightening sky.

The next morning, the 14th, the Moon is among the morning planets, with Saturn 10.0° to its left (southwest), and Mars 7.5° to its east.

Try to find the very old (just eleven hours before new) Moon rising at 4:48am on the 16th. Find a clear north-northeastern horizon and use a telescope aimed at an azimuth of 60.1° to find the 0.4% illuminated crescent.

New Moon, and the start of Lunation 1279, is at 4:01pm on the 16th. This month's new Moon is a notable distinction with the Moon and Sun being located within different constellations: Aries and Taurus, respectively.

One of the most stunning sights in the sky is when the crescent Moon pairs with brilliant Venus. We are treated to one of these pairings on the 18th, when the 7.1% crescent Moon is 2.4° from Venus. Turn your telescope to the Moon just before 8:56pm that evening to watch the dark limb of the Moon occult 136 Tauri. The 4.6 magnitude star reappears 23 minutes later right at the northern cusp.

The Moon is near Jupiter on the 19th and 20th.

Find the waxing crescent Moon near Regulus on the 22nd. It reaches its first quarter phase the next morning, the 23rd, at 7:11am.

The waxing gibbous Moon is close to Spica on the 25th and 26th.

Known as a blue Moon, May's second full Moon is at 4:45am on the 31st, rising at 8:08pm on the 30th, four minutes before sunset. Throughout the night, it tracks just a few degrees from Antares, in Scorpius. The Moon is at a maximum elevation of just

## Events in May

- |    |       |   |
|----|-------|---|
| 1  | 05:41 | First day with 14 hours of daylight (14:02:13, through August 11)   |
| 1  | 13:23 | ● <b>Full Flower Moon</b> in Libra                                  |
| 1  | 21:00 | Uranus 4.2° SSE of M45  |
| 3  | 23:00 | Moon (waning 94.2%) 1.0° SSE of Antares                             |
| 4  | 18:00 | Moon (waning 90.8%) at Apogee (1.056 LD) in Ophiuchus               |
| 5  |       | eta Aquariids   |
| 9  | 17:10 | ● <b>Last Quarter Moon</b> in Capricornus                           |
| 10 | 04:00 | Neptune 2.7° S of Pallas  |
| 12 | 22:00 | Venus 4.0° SSE of Elnath  |
| 13 | 03:30 | Moon occults Pallas (mag: 10.2; in: 3:30; out: 4:13)                |
| 13 | 04:30 | Moon (waning 16.2%) 6.1° W of Saturn                                |
| 14 |       | Equation of Time = +3:40 (Sun Fast)                                 |
| 14 | 03:30 | First day Neptune rises before astronomical twilight                |
| 14 | 04:30 | Moon (waning 8.7%) 7.4° W of Mars                                   |
| 14 | 10:00 | Mercury Superior Conjunction  |
| 14 | 10:00 | Sun in Taurus (38d)   |
| 15 | 03:00 | Ceres Conjunction   |
| 16 | 16:01 | ○ <b>New Moon</b> (Lunation 1279) in Aries                          |
| 17 | 10:00 | Moon (waxing 1.1%) at Perigee (0.932 LD) in Taurus                  |
| 17 | 20:00 | First 8:00pm Sunset (through August 4)                              |
| 18 | 10:00 | Mars in Aries   |
| 18 | 20:56 | Moon (waxing 7.1%) occults 136 Tau (mag 4.6; in: 20:56; out: 21:19) |
| 18 | 21:00 | Moon (waxing 7.1%) 2.4° NNW of Venus                                |
| 19 | 23:00 | Moon (waxing 15.3%) 6.9° WNW of Jupiter                             |
| 20 | 21:00 | Moon (waxing 23.9%) 6.2° E of Jupiter                               |
| 20 | 22:00 | Venus 0.7° N of M35   |
| 21 | 22:00 | Moon (waxing 35.2%) 5.1° ESE of M44                                 |
| 22 | 04:00 | Neptune 3.9° NNW of Vesta   |
| 22 | 14:00 | Uranus Conjunction  |
| 23 | 01:00 | Moon (waxing 47.0%) 1.6° W of Regulus                               |
| 23 | 03:16 | First day Saturn rises before astronomical twilight                 |
| 23 | 07:11 | ● <b>First Quarter Moon</b> in Leo                                  |
| 27 | 02:00 | Moon (waxing 84.7%) 4.5° W of Spica                                 |
| 31 | 04:00 | Moon (waxing 99.7%) 1.3° SW of Antares                              |
| 31 | 04:45 | ● <b>Full Blue Moon</b> in Scorpius                                 |

Ephemeris times are in EDT (UTC-4) for Seagrave Observatory (41.845N, 71.590W)



# Lunar Almanac

## May 2026

### 1 Full Moon

13:23 EDT in Libra



Rise	Transit	Set
20:09	00:59	05:41
-	25.8°	-
118.4°	180.0°	239.4°

### 9 Last Quarter

17:10 EDT in Capricornus



Rise	Transit	Set
01:50	06:45	11:48
-	28.9°	-
116.8°	180.0°	246.2°

### 16 New Moon

16:01 EDT in Aries

Lunation 1279

### 23 First Quarter

07:11 EDT in Leo



Rise	Transit	Set
11:24	18:35	01:33
-	61.5°	-
69.1°	180.0°	286.5°

### 31 Full Moon

04:45 EDT in Scorpius



Rise	Transit	Set
20:08	00:32	04:52
-	20.8°	-
126.4°	180.0°	232.6°

Date	Position	Phase	Distance
04 18:00	Apogee	90.8% ↘	1.056
17 10:00	Perigee	1.1% ↙	0.932

20.8° over the southern horizon at 12:32am. This is the second most southerly full Moon of 2026, just one-half degree higher than the full Strawberry Moon on June 30th.

## The Planets

**Mercury** is at superior conjunction on the 14th, and, although inconsequential to Earth-based observers, it will pass directly behind the Sun for about 8½ hours beginning at 5:42am.

When the innermost planet emerges back into the evening sky later in the month, it will commence one of its best evening apparitions of 2026. Beginning on the 23rd, it sets at least an hour past sunset, and by the 30th, it will be visible for 90 minutes after sunset, as it gains prominent position among the other two planets of the May evening sky, Venus and Jupiter.

Traditionally referred to as the Evening Star, **Venus** continues to shine brightly in the west-northwest after sunset. Through a telescope, its featureless gibbous disk grows from 11.6 to 13.3 arcseconds over the course of the month. By the end of May, its illuminated fraction is just under 80%.

Venus crosses into the Winter Hexagon on the 4th, joining Jupiter inside the previous season's most prominent star pattern, which is becoming consumed by twilight.

On the 7th and 8th, Venus is within the same telescopic field of view as the open star cluster NGC 1746, an object listed in the Astronomical League's Open Cluster Observing Program.

On the 14th, the brilliant planet lies 2.6° north of the supernova remnant known as the Crab Nebula, or Messier 1.

The crescent Moon joins the Evening Star on the 18th, creating a beautiful pair with the Earthlit globe of the Moon just 2.4° from the -3.9 magnitude planet.

On the 19th, Venus crosses into Gemini, the same constellation occupied by Jupiter, and on the following evening, the 20th, find the open star cluster M35 just 0.6° to the south of Venus.

During the last week of May, Venus gets closer to Jupiter by about one degree per day. On the last evening of the month, the pair of bright planets are separated by just 8.7°.

**Mars** remains low in the east before sunrise. The waning crescent Moon joins the Red Planet on the 14th and 15th.

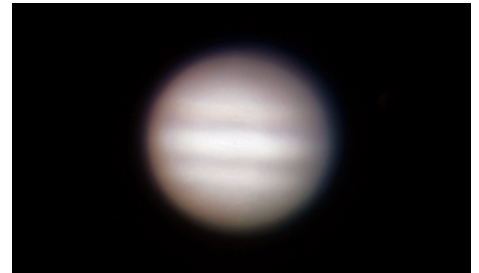
Mars moves into Aries on the 18th.

**Jupiter**, with its residence in the winter constellation Gemini, is appearing lower in the west each evening. During the first

week of May, use binoculars to watch its position change relative to magnitude 3.5 Wasat (δ Geminorum).

Jupiter's four Galilean moons appear in order of orbital distance to the west of the planet on the 9th.

On the 14th and 15th, it lies just 1.3° north of Caldwell 39 (NGC 2392), a planetary nebula that lies over 6,000 light years away, and shines at magnitude 9.9.



As the king of the planets continues moving eastward at about 10 arcminutes per day (about ⅓ the apparent diameter of the Moon), note how its changing position is easily noted with respect to the twin stars Castor and Pollux.

During the latter half of May, with Venus moving towards Jupiter at over one degree per day, notice how much closer the two brightest planets appear each evening.

The giant planet visits the compact open cluster NGC 2420 on the 26th, when it is just ⅓° north of the 8th magnitude cluster.

Located within the non-zodiacal constellation Cetus, the whale, **Saturn** is slowly returning to visibility in the predawn sky. The waning crescent Moon is 6.3° to its west on the 13th, and 9.5° northeast (parallel with the horizon) on the 14th.

The ringed planet rises before the onset of twilight for the first time on the 23rd. With its ring angle expanded to -9.7°, the planet will return to its more familiar appearance compared to last year's ring-plane crossing.

**Uranus** departs our evening sky in May, but before we send it our farewell for this season, take one last look at it 4.1° south of the Pleiades cluster just over the west-northwestern horizon during the opening days of the month.

The seventh planet is at conjunction on the 22nd, and, like Mercury six days earlier, it also passes directly behind the solar disk. The occultation begins at 4:48am and lasts for just over eleven hours.

Uranus returns to the morning sky in late July.

Located in Pisces, **Neptune** emerges from twilight on the 14th. On the 22nd, find the 7.8 magnitude planet 3.9° NNW

West

**If you can see only one celestial event this month,  
see this one.**

**The crescent moon passing Venus then Jupiter**

Look to the west-northwest 60 minutes after sunset on May 18, 19, and 20.

- On the first evening, the crescent moon full with earthshine glows immediately next to brilliant Venus.
- The next evening finds a somewhat thicker crescent moon sitting midway between Venus and Jupiter.
- On May 20, the moon lies above Jupiter and in a line with Castor and Pollux.
- The bright stars Capella and Procyon act as boundaries helping frame the scene.

**End your day with this magical scene!**

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of magnitude 8.1 Vesta. At the beginning of May, Neptune is  $6.0^\circ$  west of Saturn. The separation increases to  $8.2^\circ$  by month's end.

Neptune also has a conjunction with 2 Pallas in May, and on the 15th, Pallas, Neptune, and Vesta all lie on an  $8^\circ$  long line; however, magnitude 10.2 Pallas will be a challenge to observe while it remains low in the sky.

## Minor Planets

**Ceres** is at conjunction on the 15th and out of view. We'll be able to begin observing the solar system's innermost dwarf planet later in July.

**Pluto** shines at a dim magnitude 14.5 in Capricornus, and is located  $3.6^\circ$  northwest of  $\psi$  Capricorni, a magnitude 4.1 class F5 main sequence star that lies 48 light years away.

**Vesta** returns to the morning sky in May. The large asteroid rises just before the onset of twilight in early May and can be seen as an eighth magnitude object about two binocular fields to the right of Saturn. It crosses into Pisces on the 8th.

At tenth magnitude, asteroid **2 Pallas** is not easily seen low in the eastern sky during May, but its proximity to the brighter planets make it a worthwhile hunt.

It is occulted by the 16.6% waning crescent Moon on the 13th, beginning just after moonrise, and ending at 4:13 during twilight.

Pallas is just  $3.0^\circ$  west-northwest of Saturn on the 31st.

During the second half of the month, Vesta is  $4.0^\circ$  south of Neptune. At just a few tenths of a magnitude dimmer than our eighth planet, both objects will require

a small telescope to view due to their low elevation in the sky.

## Meteors

Earth intersects the meteor stream from Comet IP/Halley during May. The broad stream produces a long-duration, yet relatively low intensity, meteor shower, with peak activity occurring on the night of May 5-6.

The fast-moving meteors appear to originate from the northernmost star of the water jar asterism of Aquarius, eta ( $\eta$ ) Aquarii, giving the shower its namesake. As this part of the sky isn't visible until after 2:00am, this shower is ideally timed for pre-dawn observers.

Observers can expect to see ten or more meteors per hour during an entire week, centered around peak night, which will be flooded with moonlight from the 88.7% waning gibbous Moon. Eta Aquariids enter the atmosphere at a relatively fast 65 km/s, and the brighter ones tend to produce visible trains.

## The Stars

Looking to the north, we let our familiar friend the Big Dipper show us a significant positional shift indicating the progression of the season. At the onset of darkness in early May, we find the two pointer stars, Merak ( $\beta$ ), and Dubhe ( $\alpha$  Ursae Majoris) in their highest position directly above Polaris ( $\alpha$  Ursae Minoris). Just after dark at the end of the month, the entire asterism (the Big Dipper is only part of the larger constellation Ursa Major, the great bear), is west of the meridian, and the bright star pointed to by the arc of its handle, Arcturus, lies directly high due south.

As the spring sky turns above us, deep sky observers looking to explore the extragalactic realm can enjoy their quarry without waiting until the late hours.

Midnight and early morning observers will be treated to an early preview of the summer Milky Way, as Scorpius and Sagittarius come into position.

May gives us the first whole month when Corona Borealis, the Northern Crown, is visible during all hours of darkness. As we await the Blaze Star's (T Coronae Borealis's) expected outburst and brief brightening from its quiescent 10th magnitude up to 2nd, consider that not only have the photons signaling its anticipated peak left the star system nearly 3,000 years ago, but, if its periodicity remains constant, there are likely  $37 \pm 1$  subsequent outbursts that are

already on their way to us!

For May's cosmic journey, we'll choose a single star that is positioned high overhead, just a short distance from the Big Dipper, and one that is bright enough to be visible with a simple pair of binoculars.

What makes this star special is its color. Known as La Superba, or Y Canum Venaticorum (Y CvN), the star is a luminous red giant late in its evolutionary life cycle.

An abundance of carbon in its atmosphere absorbs much of the shorter wavelengths, giving the star its reddish appearance, much like how wildfire smoke high in Earth's atmosphere causes deep red sunsets.

La Superba, like all carbon stars, is variable; hence, the capital letter in its other official designation, Y Canum Venaticorum. Over a period of 157 days the star varies from magnitude 6.5 to 4.8. It is number 55 on the Astronomical League's Carbon Star Observing Program. Its name derives from the Italian astronomer Angelo Secchi, who described the star in 1868 as "superba" (superb). The name became official in 2018 when the International Astronomical Union Working Group on Star Names as-

cribed the name "La Superba" to Y Canum Venaticorum.

Finding La Superba is quite easy, but you may want to find a comfortably reclined viewing position, due to its location high overhead. First, locate the two brightest stars making up the constellation Canes Venatici, the hunting dogs: Cor Caroli ( $\alpha$  CvN) and Chara ( $\beta$  CvN). Starting at Chara, move slightly more than  $\frac{1}{4}$  the distance to Mizar ( $\zeta$  Ursae Majoris), the middle star in the handle of the Big Dipper, that is also a well-known double star. La Superba should be immediately recognized by its red color.

Although visible with binoculars, the color is much more pronounced when observed through larger instruments.

When you're gazing up at this red star, you're looking across 1012 light years at a star so large that if it were placed in our solar system, it would extend beyond the orbit of Mars. It shines with a luminosity of over 22,000 Suns.

Once you've seen La Superba, you'll find yourself not only revisiting this gem every spring, but also seeking out other superb carbon stars.

## Bayer Designations

(Greek alphabet)

$\alpha$	alpha	$\nu$	nu
$\beta$	beta	$\xi$	xi
$\gamma$	gamma	$\omicron$	omicron
$\delta$	delta	$\pi$	pi
$\epsilon$	epsilon	$\rho$	rho
$\zeta$	zeta	$\sigma$	sigma
$\eta$	eta	$\tau$	tau
$\theta$	theta	$\upsilon$	upsilon
$\iota$	iota	$\phi$	phi
$\kappa$	kappa	$\chi$	chi
$\lambda$	lambda	$\psi$	psi
$\mu$	mu	$\omega$	omega

## Book Review

# For the Love of Mars: A Human History of the Red Planet

By Matthew Shindell, Chicago: The University of Chicago Press, 2023, ISBN [9780226821894](https://www.ub.edu/9780226821894), Hardbound, \$27.50, US

Reviewed by Francine Jackson

Recently, I read another book on Mars, *The Martians*, by David Baron. It was written in more of a lighthearted tone, concerning the work of, especially, Percival Lowell, and those who tended to follow him.

*For the Love of Mars*, on the other hand, is a more serious and almost scholarly history of the study of Mars, although it does begin with fairly contemporary spacecrafts to the planet, not just those of NASA, but China and the UAE, and others.

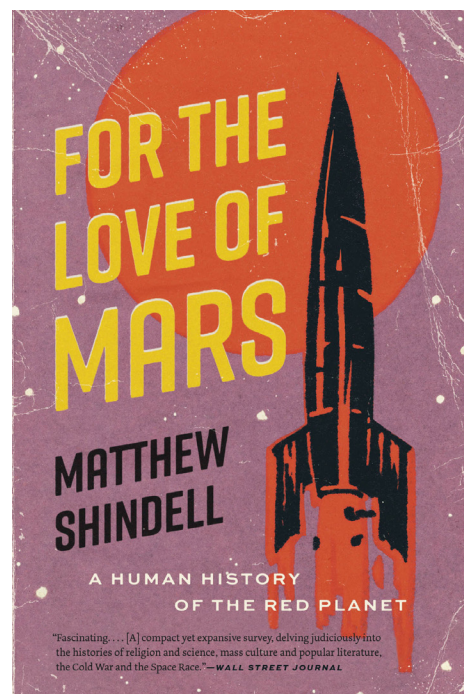
And then, we go back in time, to the early sky gazers and their observations of the movements of celestial objects, and how they gave such human qualities to what they saw. Mars, especially, was notable because of its relatively faster motion than the other planets, plus its reddish color made it stand out among the others.

Mars was also considered a part of the

reason for the Black Death, as its close association with Jupiter and Saturn signaled a "universal and indiscriminate punishment" for mankind's wicked ways. Throughout this book we go backwards and forwards, comparing the concept of a reddish planet and its place in the sky. Even Dante traveled to Mars, just as the Martians traveled to Earth, courtesy H. G. Wells.

About halfway through this book, we come close to today, with information concerning most of the orbiters that have mapped virtually all of the planet, and rovers, some of which have traveled farther than ever believed.

*For the Love of Mars* is a much more comprehensive book than *The Martians*, beginning with the very early observers, and finishing with the latest information courtesy of such missions as Viking, Op-



portunity, Perseverance, and all other machines that have opened our eyes to the true measure of our nearest outer planet. It encourages us to want to travel there. Perhaps the time isn't as far as imagined...? Matthew Shindell certainly hopes so.

# The Dung Beetle Problem

by Francine Jackson

Several years ago, I wrote on the importance of the lowly dung beetle (*The Sun, Moon, Stars, and Dung Beetles*, May 2016, p. 3), and its apparent ability to travel by means of the sky, just as birds and some butterflies do. By dancing on top of their dung balls, they record the positions of the Sun, Moon and stars, which allow them to travel home after their busy day moving their incredibly large amount of material wherever they need to put it.

Now, sadly, it is being determined that these incredible little insects are being affected by climate change. It appears they can only exist properly in a certain temperature range. By studying the beetle populations, it was found their numbers fell rapidly between 800 and 1600 feet above sea level. Apparently, the higher altitude temperature was ideal for the beetles, while higher temperatures in the lower regions

tended to stress them out. As a result, they may be forced to shift to the higher, cooler elevations; however, by doing this, their position of breaking down animal dung, both returning much needed nutrients to the soil, and also removing parasitic breeding sites, which help limit the spread of diseases, would be greatly affected. In addition, their place in the food chain could cause disastrous effects on animals that rely on them for food.

Although these little creatures are ones that use the sky for their individual navigating, we also need to consider them as an indicator of the change in worldly temperature. Although not beautiful, and not an insect we often think about, these beetles are unique in their lifestyles, and consequently their necessity in ours. Their importance in our lives is something we need to think about.



Francine Jackson admires a display showcasing dung beetles, including a larger-than-life diorama, at the Houston Museum of Natural Science during an April 2024 visit.

## Upcoming Presentations

**JUNE 6**

**Dr. Ralph Milliken, Brown University**

at Seagrave Memorial Observatory

<https://nightsky.jpl.nasa.gov/events/skyscraper/121333/>

**JULY 11**

**Member Presentations**

at Seagrave Memorial Observatory

<https://nightsky.jpl.nasa.gov/events/skyscraper/123293/>

**AUGUST 1**

**Dr. Vijay Varma, UMass, Dartmouth**

at Seagrave Memorial Observatory

<https://nightsky.jpl.nasa.gov/events/skyscraper/123294/>

**SEPTEMBER 5**

**Dr. Savvas Koushiappas, Brown University**

TBD at Seagrave Memorial Observatory

<https://nightsky.jpl.nasa.gov/events/skyscraper/125246/>

**OCTOBER 3 & 4**

**AstroAssembly**

at Seagrave Memorial Observatory

**NOVEMBER 7**

**November Presentation**

TBD at Seagrave Memorial Observatory

# A Readily Visible Morning Comet in April

by Gregory T. Shanos

A brightening new comet designated C/2025 R3 (PanSTARRS) was visible low in the morning sky in the Great Square of Pegasus during the month of April 2026. The name is derived from the PANoramic Survey Telescope and Rapid Response System located at Haleakala Observatory in Hawaii. This facility consists of astronomical cameras, telescopes and computers that continuously survey the sky for moving or variable objects such as asteroids and comets. The comet was discovered on September 8, 2025 having originated from the Oort Cloud with an orbital period of 170,000 years. (See references 1 & 2) Comet C/2025 R3 (PanSTARRS) is expected to reach perihelion on April 19, 2026 at a distance of 0.5 AU from the Sun. The comet's closest approach to Earth will occur on April 27, 2026, with its brightness expected to reach naked eye visibility at magnitude +2 to +3. After April 28th the comet will disappear into the Sun's glare only to re-emerge in the evening sky in May 2026. Comet C/2005 R3 PanSTARRS will appear in the constellation of Eridanus and rise higher in the sky on each successive evening as it approaches the region below the belt of Orion. The comet will be fading at this point; however, imaging is still recommended to follow the comet through its journey in the solar system. Unfortunately, the comet will continue to remain low in the sky for the Northern Hemisphere.

After having seen various images of the comet taken by amateur astronomers on the Internet and on Facebook, I decided to attempt an observation. I woke up at 5:30am local time and set up my recently acquired

Seestar S30 Pro on the driveway of my front yard. The light pollution was horrific with a streetlamp to my right and my neighbors' lights to my left. (See [Photo 1](#)) In addition, there was a waning 29% phase Moon in nearby Capricornus which did not help the situation. Fortunately, the sky was clear down to the horizon. The comet was conveniently situated within the Great Square of Pegasus. (See Figure 1) The four stars of

the square are Alpheratz ( $\alpha$  And) at magnitude +2.1, Markab ( $\alpha$  Peg) at magnitude +2.5, Scheat ( $\beta$  Peg) magnitude +2.4 and Algenib ( $\gamma$  Peg) at magnitude +2.8. None of these naked eye stars were visible due to light pollution at this low altitude above the horizon from my location!

The Seestar S30 Pro has a wide field of view of 2.24 x 3.99 degrees. I had the smart telescope mounted in equatorial mode and



**Photo 1:** iPhone 16 Pro Max photo of my observing site on Longboat Key, Sarasota, Florida on April 12, 2026, at approximately 6 am local time or 10h Universal Time. Note the bright streetlight to my right and my neighbors' lights to the left. The Seestar S30 Pro is seen with an iPad screen glowing nearby. The comet was visible above the middle house with the flat roof across the street. Natural twilight and a waning 29% moon nearby only added to the man-made artificial light pollution. Photo by Gregory T. Shanos

**Opposite:** My best image of the comet without any artificial satellite trails. Straight out of the Seestar- NO post processing. Taken April 12, 2026, at 6:01am local time or 10h 01m Universal time. The nucleus appeared bright, well condensed with a blueish plasma tail. A dust tail was not evident. Note the faint background stars were readily visible with this smart scope with an aperture of only 30mm. The field of view is 2.24° x 3.99° The comet was only 19 degrees above the horizon when this image was taken. The COBS/Live Sky Website placed this comet at magnitude +4.4 on April 12, 2026. (See reference 4 & 5)

began the setup procedure. Each software/firmware update of the Seestar includes a database of the most current comets that are visible in the sky. I tapped on the C/2025 R3 (PanSTARRS) icon, and the telescope slewed to the comet. To my amazement- the nucleus was perfectly centered in the field of view! Given the horrific light pollution, the Seestar S30 Pro easily found the comet, being only 19 degrees above the horizon, on the first attempt. I tweaked the nucleus slightly to the left to allow more of the plasma tail to be seen. (See Images 1, 2 & 3). I took 10 second exposures for a total of 2 to 3 minutes. The comet was at magnitude +4.4 on April 12, 2026 and magnitude +4.9 on April 13, 2026 according to the Comet Observation Database (See references 4 & 5). Note that the nucleus was bright, well condensed with a blueish plasma tail. I was surprised

to see so many artificial satellite trails running through the image. The five-minute exposure had eleven visible satellite trails! (See [image 1](#)). Notice how many faint background stars were also visible in the field of view. These smart scopes are a “miracle” of technology since they can successfully image faint deep sky images in light polluted skies. Dark sky sites are no longer an absolute necessity for deep sky imaging, only highly recommended. A dust tail was not evident in my image and in other images I have seen on the internet. I attempted to view the comet with 10x50 binoculars once I knew where to look. I could not find the comet with binoculars due to light pollution.

In conclusion, I will continue to image Comet PanSTARRS on every clear morning- weather permitting until it is no lon-

## References

**C/2025 R3 (PanSTARRS) - Wikipedia**

[https://en.wikipedia.org/wiki/C/2025\\_R3\\_\(PanSTARRS\)](https://en.wikipedia.org/wiki/C/2025_R3_(PanSTARRS))

**Will Comet C/2025 R3 (PanSTARRS) be the 'great comet' of 2026? | Space**

<https://www.space.com/astronomy/comets/will-comet-c-2025-r3-panstarrs-be-the-great-comet-of-2026>

**Comet C/2025 R3 (PANSTARRS) April 9, 2026 Spaceweather.com Time Machine**

<https://www.spaceweather.com/archive.php?view=1&day=09&month=04&year=2026>

**Comet C/2025 R3 (PANSTARRS) COBS - Comet OBServation database**

<https://cobs.si/comet/2663/>

**Comet C/2025 R3 (PANSTARRS): Complete Information & Live Data | TheSkyLive**

<https://theskylive.com/c2025r3-info>

ger visible. The comet will be lower in the sky during each successive observation as it continues to brighten. I encourage everyone to get out there and attempt to image/photograph this impressive comet and report all your observations to Carl Hergenrother PhD, Comet Section Coordinator at the Association of Lunar & Planetary Observers at [comets@alpo-astronomy.org](mailto:comets@alpo-astronomy.org) and [carl.hergenrother@alpo-astronomy.org](mailto:carl.hergenrother@alpo-astronomy.org). Once the comet re-emerges in the evening sky there will be a renewed interest since this would be a convenient “after dinner” comet. Let’s hope it stays relatively bright with an impressive tail. Time will tell.

 <https://flic.kr/s/aHBqjCQVUe>



## Artemis II Launch Seen From Florida

Greg Shanos didn't have clear skies over Sarasota, FL to see the Artemis launch, but a friend of his, John Sillasen, sends this:

Top: Greg, I have permission for you to share the photo done of the Artemis II launch by my brother, Wayne Sillasen. He took the photo from Satsuma, Florida. Satsuma is 3 hours due north of Orlando and 90 miles northwest of Kennedy Space Center.

Bottom: I was completely clouded out. A friend of mine Bill Marois in nearby St. Petersburg (135 miles west-southwest of Kennedy Space Center) snapped this image. He stated the sun was shining and illuminating the rocket.

The path was different than the space shuttle. The space shuttle went upwards whereas the Artemis II rocket was horizontal. Bill gave me permission to use the image in newsletter publications. Feel free to include it in the next Skyscraper.



# Observatory Nights & Star Parties

## Seagrave Observatory Night Season Opener

**Saturday, April 11, 2026**

Weather: Clear, 45° calm

Participants: Bob Janus, Jim Hendrickson, Francine Jackson, Jay Baccala, Mike Kerr, John Kocur

Attendees: 12

Observed: Moon, Mars, M44, M64, M104, NGC 4656, M81, M82, International Space Station

Photos: <https://flic.kr/s/aHBqjCOLTU>

Reports by Bob Janus & Jim Hendrickson

Was this the first Public Night for 2026? If so, we are off to a good start with a clear dark sky, no wind or bugs, and temperature about 45 degrees. Unfortunately, there was no Moon visible to celebrate the success of Artemis II.

Jim Hendrickson, Francine Jackson, John Kocur, Mike Kerr and Bob Janus were present to welcome 12 to 15 enthusiastic visitors. Jupiter was viewed through the Alvan Clack. Deep sky objects were seen and imaged with the Meade 12-inch and a SeeStar set up in the courtyard.

We closed around 11 pm.

Report by Bob Janus

John Kocur reports observing Sirius, Orion Nebula, Jupiter, M44, and Capella with his 8-inch telescope set up in the front yard.

At one hundred full days into 2026, Saturday, April 11 provided conditions well-suited for our season opener. Sunny skies and temperatures well into the 50s gave way to cool, and exceptionally clear and steady conditions optimal for observ-

ing planets as well as the deep sky. Wind was calm and there was not any hint of dew.

As the open hours started during twilight, Jupiter was the first object visible, so the telescope was first aligned to it. Guests started filtering in, including local friend and HP Lovecraft enthusiast Carl Johnson. As the sky darkened, Francine suggested trying for M44. The large cluster overflowed the field of view in the 12-inch SCT, so the view was preferred in the 80mm finder, which framed the entire cluster nicely. Francine excitedly called out a meteor she saw cross the field of view while viewing M44.

A few peepers kept us company during the night, but their numbers dwindled as temperatures dropped to below 40°F, until there was one, and then none.

About an hour into the evening, a great horned owl could be heard in the distance towards the west, making occasional calls for the remainder of the evening.

With the sky dark, I tried the galaxy NGC 2903, and while it was visible, it showed little structure and was a bit underwhelming. NGC 3242 (Caldwell 59), a planetary nebula in Hydra, was just about to transit, so it became the next target. As this object is a typical example of the eventual evolution of our Sun, this led to some great discussions about stellar evolution, supernovae (including Betelgeuse), and the perennial favorite topic: black holes.

By this time, M3 had risen high enough in the east to get a good look, rounding out a nice set of three distinctly different star clusters visible during the evening.

There were no passes of the International Space Station, but there was a Tiangong pass in the southwest that occurred during setup time, and we all missed it. Given how transparent the skies were, and with the lack of moonlight, a high number of satellites were seen crossing the sky until the last hour or so, some as bright as 2nd magnitude.

M104 was visible, but was still too low to clear the roof.

Before it went behind the trees, I decided to take another look at Jupiter under higher magnification, since the seeing cer-



Jay Baccala captured M44 using a Seestar S50 during April 11 Observatory Night.

tainly supported it.

As the crowds thinned, I turned the telescope to a more obscure target: the carbon star U Hydrae, which showed a vivid orange color in the scope. By this time, most everyone had left, and I turned the scope to Regulus, then finally ending with the galaxy pair M65 and M66, both of which showed hints of spiral structure.

In total, about a dozen visitors came to view through the telescope. We had a lot of great discussions about topics ranging from the recently concluded Artemis II mission to the Moon, meteors (one of the visitors saw a bright one low in the south), interstellar space travel, and the probability of extraterrestrial life. One of the visitors, Nick, was quite enthusiastic, asked a lot of good questions about getting a telescope, and planned to visit again and even join Skyscrapers.

Just about everyone had left by 10:45pm, so I closed the telescope. Out front, John Kocur was packing away his telescope, and Bob Janus and Michael Kerr had just finished closing the 8-inch refractor. By 11:00pm we had closed for the night, concluding a very successful first open night of the season.

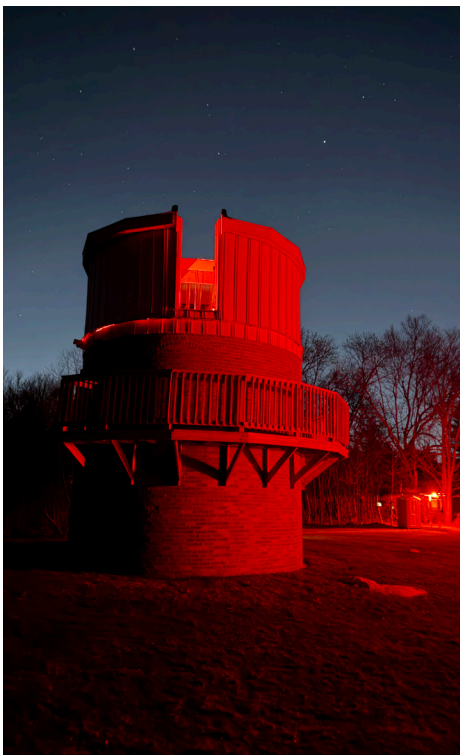
Report by Jim Hendrickson

### **Mattapoisett Land Trust: postponed Sunday, April 19, 2026**

Weather: Cloudy, rain

Monday, April 20, 2026 (rain date)

Weather: Cloudy



At the Chase Farm Visitor Center, Kathy Hartley introduced Francine Jackson, who gave a presentation that featured photos from the recently completed Artemis II mission to the Moon.

### **Starry, Starry Nite at Chase Farm Thursday, April 23, 2026 (rescheduled from April 22)**

Weather: Mostly clear, 45°, wind NE

Participants: Francine Jackson, Bob Janus, Jim Hendrickson, John Kocur

Attendees: 22

Observed: Moon, Venus, Uranus, Jupiter, M45

Photos: <https://flic.kr/s/aHBqjCRY4>

Reports by Jim Hendrickson, Francine Jackson

After a clouded-out Wednesday, and a forecast prospect of only 50% clear sky, we opted to try our first off-site event of 2026 at Chase Farm in Lincoln on Thursday, April 23. We arrived just before sunset, and while Francine set up her presentation in the meeting room, I set up her Astroscan reflector and my 80mm refractor on the observing field to the west of the visitor center.

John Kocur and Bob Janus arrived a few minutes later and set up just a short distance farther up the hill: John with an equatorially-mounted 80mm refractor and Bob with his 8-inch Dobsonian reflector.

At 7:35pm, Francine was introduced by Friends of Hearthsides president Kathy Hartley, and she began her presentation “The Mid-April Sky, 2026,” including some featured highlights from the recently concluded Artemis II mission, a few minutes later.

They seemed to like seeing the beautiful images from Artemis, as it brought their attention to the night sky afterward.

The first quarter Moon was high overhead, but a thin layer of cloud obscured it until just around sunset. A thick bank of cloud from west to south remained persistent through the evening, and obscured Venus for some time until just after the pre-

sentation concluded and the group came up to the observing field.

While waiting for the guests to come up to the hill, David Cruz, the photographer for Hearthsides and Great Road Heritage Campus, was walking around and taking photos during the deepening twilight, and stopped by to chat for a few minutes and show me his Nikon Zf “retro” camera.

A blustery wind from the northeast replaced the warmer and calmer air of the afternoon, as temperatures dropped into the low 40s, but felt much colder with the wind.

The cloud bank in the west descended just enough to spot Venus, to which I turned my 80mm refractor. I used my lowest available magnification to give the widest possible field of view in order to capture the Pleiades in the same view as Venus, the two prominent objects separated by about 4°. This would remain my primary object throughout the evening.

Francine kept her telescope on the first quarter Moon, and David returned later to attempt to take pictures through it.

The calls of a lone killdeer swooping across the field accompanied us for a few minutes, and, despite the rapid decline in temperature, a chorus of peepers could be heard off in the distance to the north.

As the remaining twilight glow faded away, and the cloud bank in the west retreated a bit more, I was able to see the dim but colorless glow of Uranus less than one degree south of Venus. By this time, most of the guests had left, likely due to the cold, but Kathy and Francine enjoyed the view.

Observing concluded just before 9:00pm, and we’re looking forward to returning to Chase Farm on October 27.



WELCOME  
TO THE  
ARTEMIS  
GENERATION

BY JIM HENDRICKSON

## Do you remember when humans flew to the Moon?

As a lifelong astronomy and space enthusiast in my early 50s, I didn't remember, because it never happened during my time on Earth. My interest in science and space exploration was fueled early on by the Voyager missions to the outer planets, and watching some of the early launches of the Space Shuttle – back when historic space flights would interrupt regular television programming for all to see.

I distinctly remember one evening, I can't remember exactly when, but I know it was sometime in the early 1980s: looking up at the crescent Moon during a family trip, my Dad told me that men had walked on the Moon. I was struck by this statement. Prior to this time, such a feat seemed extraordinarily unlikely to younger me, so I never even considered it a possibility. I was aware that the Moon was about a quarter the size of Earth, was about a quarter million miles from us, so far away that it took a whole month to make one trip around us. Men had walked on the Moon? How did they do it? Why aren't they there now? Can (or will) they do it again? I had to know more. So in the years that followed, as I was simultaneously learning to explore the sky with my small telescope, I started to slowly gain this knowledge by, in the days before the internet, reading old books about the Moon at the library. There I learned all about Neil and Buzz, the lunar landers, the mighty Saturn V rocket... it all seemed so new and exciting.

I felt like I had gained a great deal of knowledge about the Moon, and the Apollo missions to explore it. I would later meet Captain Alan Bean, and was captivated by his stories about his journey to the Moon on Apollo 12, the second lunar landing mission. He even gave me an autographed print of his "Giant Leap" painting.

But, no one had been to the Moon in my lifetime. I never felt connected to human exploration of the Moon. It was all history, knowledge gained in old books from grade school days, and for decades, that seemed like it would never change.

This would change on April 1, 2026, when four astronauts: Commander Reid Wiseman, Pilot Victor Glover, Mission Specialists Christina Koch and Jeremy Hansen,

Opposite: A view from the window of the Orion spacecraft approximately 9 minutes before Earthset during the Artemis II lunar flyby on April 6, 2026. NASA

climbed into their Orion capsule called Integrity, and lifted off from Launch Complex 39B at Florida's Kennedy Space Center at 6:35pm EDT (22:35 UTC) on a journey unlike any previously embarked on.

Named for the sister of Apollo in ancient Greek mythology, the Artemis program is NASA's 21st century ambition to establish sustained and permanent human presence on the Moon.

The first test flight, Artemis I, launched on November 16, 2022 and lasting 21 days, was the first launch of the full-stack Space Launch System (SLS) rocket and uncrewed Orion capsule to test the hardware, systems, and procedures for humanity's next flight to the Moon.

Artemis II, still considered a test, was the first crewed flight of the Artemis program, and the first mission to send humans beyond low Earth orbit since Apollo 17 in late 1972. At long last, we were going back to the Moon.

Something that wasn't available during Apollo, anyone with internet access could tune into the Artemis II mission at any time from pre-launch preparations to post-splashdown recovery via NASA's streaming service or on YouTube. There were two dedicated channels running continuously: one for the official mission broadcast, consisting of video from on-board showing crew activities, communications with Mission Control, and interviews; the second channel was a continuous feed from the external cameras, which were modified GoPro action cameras mounted to the articulating solar wings on Orion's service module. The official mission channel would play daily mission summary highlights every hour during crew rest periods, alternating with external spacecraft camera views.

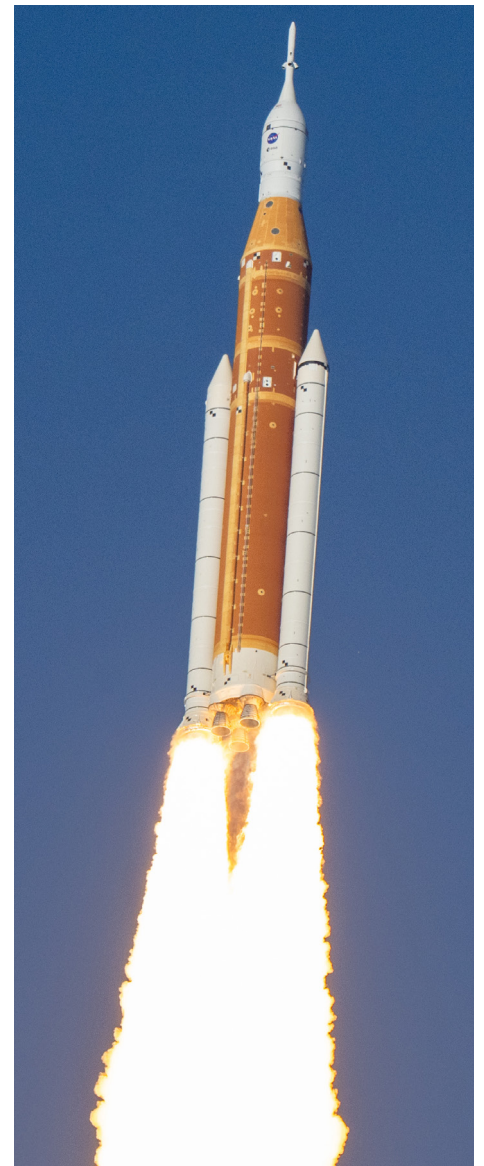
Additionally, NASA would spin up dedicated video feeds for highlighted events, including launch and splashdown, proximity operations and of course, the lunar flyby. All of these videos remain readily available for viewing.

Having this continuous live coverage of the mission provided a presence that the Apollo generation did not have. It felt not that the astronauts were on some faraway adventure, so distant and removed from life here on Earth, but that we were there with them the whole time. How many of you had Artemis II streaming continuously 24 hours a day? Were you a part of this mission?

With a total of 32 cameras on board, including external and internal cameras, cameras in personal divides, and the cameras used for the lunar science portion of the mission (think astrophotography cameras and lenses), there was no shortage of incredible video and imagery to view. Images from still cameras were downlinked daily and placed on NASA sites, and through NASA Johnson Space Center's Flickr photostream.

## FLIGHT DAY 1

While much of the initial attention and excitement was still focused on the spectacular launch of Artemis II, the crew got to work right away. After conducting an apogee raise burn, Integrity separated from



NASA's Artemis II mission launched at 6:35pm EDT on April 1 from Kennedy Space Center. Photo Credit: (NASA/Keegan Barber)

its Interim Cryogenic Propulsion Stage (ICPS), and we had a live cockpit view inside Integrity as Pilot Victor Glover took the controls to manually guide the capsule towards a pair of docking targets on the ICPS. While there were no docking adapters on ICPS, and the Artemis II Orion capsule was never intended to contact another spacecraft, this exercise, known as proximity operations, was meant to demonstrate the capabilities of the Orion capsule and its European Service Module, and the crew's ability to maneuver it in space in preparation for future flights that will require docking with additional spacecraft.

## FLIGHT DAY 2

One of the most critical phases of the mission occurred on flight day 2, when Artemis II Mission Management Team gave the "Go for TLI" call (TLI = trans-lunar injection). This is the maneuver that would boost Integrity and its crew out of Earth orbit, the first time such a flight profile had been conducted since Apollo 17 in 1972. Using Orion's main engine, a slightly modified Space Shuttle Orbital Maneuvering System

(OMS) hypergolic thruster, Artemis II was sent on its way to the Moon during a five minute and 50 second burn that started at 7:45pm EDT on April 2. It is notable that this was the last major maneuver required to complete the mission as planned.

As significant as the TLI maneuver was, spaceflight jargon, telemetry numbers, and lines projected on a map do little to engage public fascination, so the crew took advantage of their last night period before the lunar encounter to turn their cameras back towards Earth, and wow, what a sight that was!

Do you relish a nighttime landscape illuminated by nothing other than Moonlight? Have you ever observed the northern lights (aurora borealis)? How about the southern lights (aurora australis)? What about zodiacal light, sunlight scattered off interplanetary dust particles? How about seeing all of these things, all at once?

The first captivating image from Artemis II portraying all of the above, shows Earth bathed in Moonlight, auroral arcs hugging both north and south poles, as well as a tinge of sunset, suspended on a starry back-



Christina Koch gazes upon the whole world outside the window of Integrity. NASA photo

drop with the planet Venus.

The remainder of the day included astronauts outfitting the cabin for their upcoming science mission and additional tests.

Providing a striking demonstration of Kepler's Second Law of Planetary Motion, Integrity reached the halfway point between Earth and the Moon just 26 hours after the TLI burn, and would continue to slow down, taking another three days to cover the remaining distance to the Moon.



## FLIGHT DAY 3

Flight Day 3 continued with additional manual piloting demonstration, as Mission Specialist Christina Koch took the controls and executed a series of planned maneuvers in deep space.

Another mission highlight was when the astronauts began to see features on the lunar farside, including the gigantic Orientale basin. This was the first time humans had ever seen this lunar feature, as it was in shadow during all of the Apollo missions.

## FLIGHT DAY 4

As Artemis II got closer to the Moon, and lunar observations started filling the crew's time, conversations began to sound very familiar: dimming the cabin lights to avoid reflections and preserve dark adaptation, observing in low light, examining features on the lunar terminator, comparing albedo features at changing angles of incidence, the challenge of getting the best camera settings to capture features over a wide dynamic range... many of the same things we talk about on the observing field at our observatory events. The conversations beamed down live from Artemis II could have been Reid, Victor, Christina, and Jeremy looking through our telescopes, except what they described seeing was well beyond what our telescopes can show.

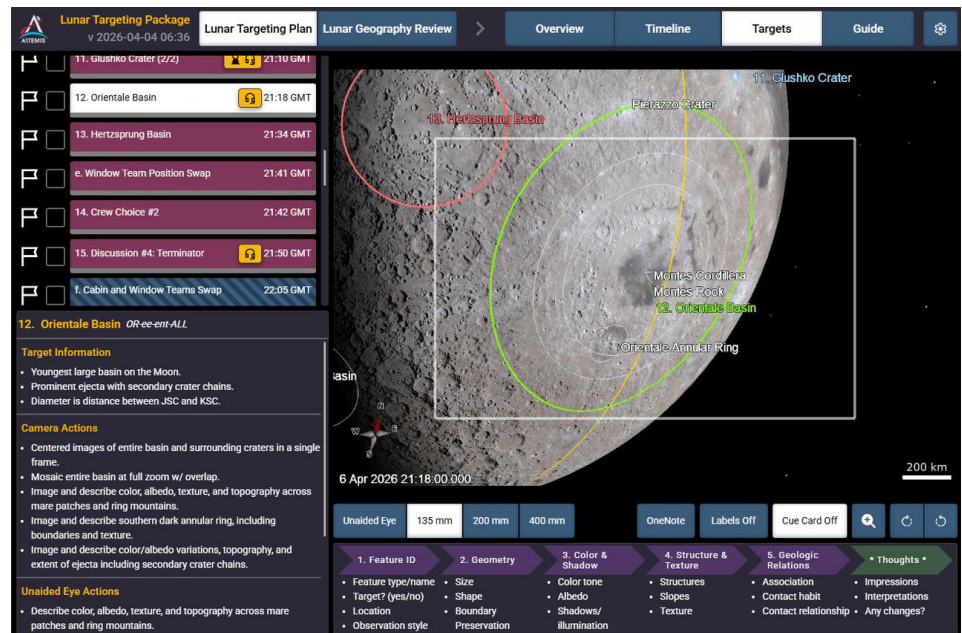
*"...it is phenomenal, and the Moon we are looking at is not the Moon you see from Earth, whatsoever."*

CHRISTINA KOCH

## FLIGHT DAY 5

On the way to the Moon, Artemis II was scheduled to conduct three outbound trajectory correction burns, meant to fine-tune the placement of the spacecraft for both the lunar flyby and the return trip to Earth. However, the TLI maneuver was so accurate that only the last of the three planned maneuvers was needed.

**Opposite:** In one of the most stunning images of Earth ever captured, the night hemisphere illuminated by Moonlight was captured by the crew of Artemis II on April 2 as they were outbound to the Moon. Visible were both northern and southern lights, zodiacal light, and the planet Venus. NASA photo



This is a screenshot of the Lunar Targeting Plan application that guided the Artemis II astronauts through their lunar science observations. This custom software was built by the crew lunar observations team, a subset of the Artemis II lunar science team.

Flight Day 5 concluded as Artemis II entered the lunar sphere of influence at 12:37 a.m. EDT on April 6, when the Moon's gravity began to exert more force on the spacecraft than Earth's gravity.

Reid has a few words to say as Artemis II approached the lunar flyby that would be a preview of things to come:

*"I think one of the most interesting things right now is the four of us have looked at this Moon our entire lives, and the way we are responding to what we are seeing out the window is, it's just like we're a bunch of little kids up here, just, we cannot get enough of this. It's amazing. Thank you for the privilege."*

## FLIGHT DAY 6

Flight Day 6 was the highlight of the mission: the lunar flyby. The day began with crew wake up and a personal greeting to Reid, Glover, Koch, and Hansen recorded by Apollo 8 astronaut Jim Lovell before his death last August.

*"Hello, Artemis II! This is Apollo astronaut Jim Lovell. Welcome to my old neighborhood! When Frank Borman, Bill Anders, and*

*I orbited the Moon on Apollo 8, we got humanity's first up-close look at the Moon and got a view of the home planet that inspired and united people around the world. I'm proud to pass that torch on to you — as you swing around the Moon and lay the groundwork for missions to Mars ... for the benefit of all. It's a historic day, and I know how busy you'll be. But don't forget to enjoy the view. So, Reid, Victor, Christina, and Jeremy, and all the great teams supporting you — good luck and Godspeed from all of us here on the good Earth."*

To complete the bridge from Apollo 8 to Artemis II, the crew presented a flown Apollo 8 patch that was flown on that mission in December 1968.

### Distance Record

At 1:56pm EDT, Mission Control informed the Artemis II crew that they had surpassed humanity's greatest distance record of 248,655 miles set by Apollo 13 astronauts Jim Lovell, Jack Swigert, and Fred Haise on April 15, 1970. Integrity and her crew would ultimately reach a maximum distance of 252,756 miles.

In response, Jeremy Hansen replied:

*“From the cabin of Integrity here, as we surpass the furthest distance humans have ever traveled from planet Earth, we do so in honoring the extraordinary efforts and feats of our predecessors in human space exploration. We will continue our journey even further into space before Mother Earth succeeds in pulling us back to everything that we hold dear. But we most importantly choose this moment to challenge this generation and the next to make sure this record is not long-lived.”*

### Dedication of Lunar Craters

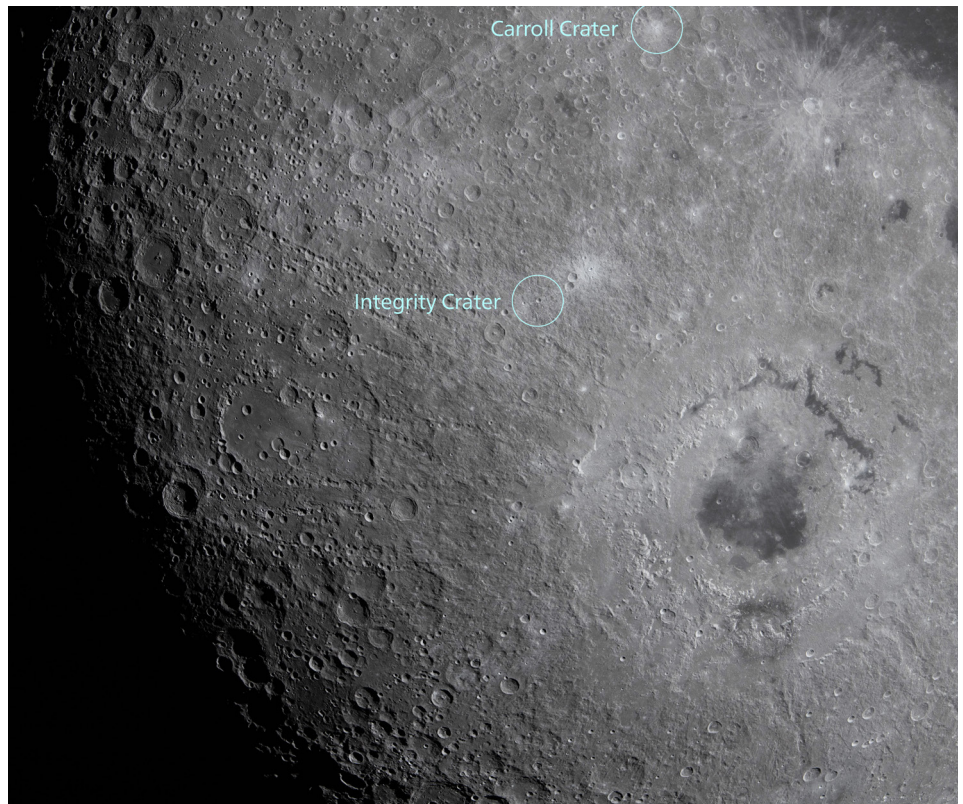
Jeremy Hansen prepared an emotional presentation to suggest names for two unnamed lunar craters in honor of the Artemis II: Integrity, a 3.7-mile diameter crater located at 2.7°N, 104.9°W, was suggested in honor of the first spacecraft to take humans to observe the lunar farside. The second, Carroll, a 3.5-mile diameter crater located at 18.8°N 86.5°W, on the nearside/farside boundary just west of Oceanus Procellarum, and visible from Earth during favorable librations and described as “a bright spot on the Moon” by Hansen, is to be named Carroll for Commander Reid Wiseman’s late wife Carroll Wiseman, who died from cancer in 2020.

It was this moment that Reid said had the crew the most bonded, the pinnacle moment of the entire mission.

### The Lunar Flyby

In another departure from Apollo, Artemis II had its own science team on the ground, including a dedicated console position at Mission Control Center in Houston. The lunar science team comprises experts in lunar geology, impact cratering, volcanism, polar science, imaging, and visualization that operated out of two special rooms integrated with the main Mission Control: the Science Evaluation Room (SER) provided science input during live operations, and the Science Mission Operations Room processes data, evaluates imagery, and supports rapid analysis.

There was a seven-hour window for lunar observations, when the astronauts alternated in pairs with time at the window and time as support. The astronauts in the



This view of the Moon from Artemis II shows the locations of the two proposed new crater names Integrity and Carroll. Carroll, names for Reid's late wife, was described at a "bright spot on the Moon" by Jeremy Hansen and is visible from Earth on the eastern limb during favorable librations. The names will be submitted to the International Astronomical Union for consideration. NASA photo

windows recorded lunar observations using cameras, tablets, and audio recordings. The astronauts in the support positions would log activities and conduct situation reports, communicating with Mission Control on the progress of observations. The lunar observations were choreographed using the Lunar Targeting Package, a digital lunar atlas that helped the astronauts identify features on the Moon and plan their observations. NASA indicated in a later press conference that the Lunar Targeting Package would eventually be made public. This would certainly be a useful tool for our own lunar observation nights at Seagrave Observatory.

The crew of Artemis II witnessed Earthset and went into a 40-minute communications blackout as they went around the back of the Moon. Because Integrity was on a free-return trajectory around the Moon, there was no engine burn to enter lunar orbit like most of the Apollo missions did. Therefore, there were no tense moments in Mission Control waiting for the reacquisition of communications, and the astronauts were able to peacefully coast through the blackout period while continuing to conduct their lunar science observations.

The highlight of the lunar flyby was undoubtedly the total solar eclipse. Many of us have experienced the excitement of traveling to a faraway destination to see a total solar eclipse: the lead-up and growing anticipation, making sure we see everything we set out to look for, making sure we got just the right shot, the real-time reactions and emotions to witnessing a spectacle that lasts mere minutes, and then, when it's all over, trying to find the right words to describe what we just saw. The Artemis II crew took us along on their eclipse trip, and their memorable reactions to it were nothing short of inspiring.

The astronauts donned safe solar viewing “eclipse” glasses, the same ones we used for the recent North American total eclipses of 2017 and 2024, and the annular eclipse of 2023. The photo shows Victor Glover wearing a set of solar eclipse glasses from the October 2023 annular eclipse at Petroglyph National Monument, the same location from which a half-dozen Skyscrapers members observed that eclipse.

Being much closer to the Moon than us here on Earth, they got to enjoy 54 minutes of totality, during which they were tasked with looking for a whole set of phenomena,

some like we usually do: the solar corona, Earthshine, stars and planets visible, and some, that are just not possible from any vantage point on Earth, such as lofted lunar dust and impact flashes.

Reid reported that he and Jeremy had seen five impact flashes near or south of the equator on the Earth-facing side of the Moon. In response, the science team members in the Science Evaluation Room were said to be literally jumping up and down.

They had also described seeing the topography around the entire limb of the Moon, being backlit by the gray of the solar corona, and the everpresent Earthshine, under which lunar features could clearly be observed.

An exchange between Victor and the science team described some of the planets he was observing during the eclipse, including one that appeared distinctly orange.

*“Victor, we suspect what you are seeing is Saturn and Mars. That reddish object is likely Mars, good opportunity to look to the future of where we’re going.”*

*“Yeah, we can absolutely see the color of Mars. That’s awesome!”*

These words from Artemis II Commander Reid Wiseman to the science team at Mission Control provide a compelling rationale for why we explore:

*“No matter how long we look at this, our brains are not processing this image in front of us. It is absolutely spectacular, surreal. There’s—I know there’s no adjectives. I’m going to need to invent some new ones to describe what we are looking at out this window.”*

I couldn’t help but to have “The Blue Danube” by Johann Strauss II playing in the background while Artemis II was coming out of eclipse, as this music has always instilled in me visions of taking a journey to the Moon, thanks to it being featured prominently during those scenes in *2001: A Space Odyssey*.

When the eclipse pictures were down-



**Above:** The crew of Artemis II gets ready to observe an out-of-this-world solar eclipse. NASA photo

**Below:** Perhaps the most unique eclipse photo you’ll ever see: passing 4,070 miles above the lunar surface, Artemis II astronauts captured this stunning scene of the Moon silhouetted by the solar corona, and a background filled with stars and planets. Visible to the lower right, in order of distance from the lunar limb, are Saturn, Mars, and Mercury. The terminator seen in this view is the nearside/farside boundary, as the illuminated crescent is visible from sunlight reflected from Earth, which is out of view to the left. NASA photo





The deep sky from deep space: This photo of the Milky Way, centered on the Carina Nebula, was taken by the Artemis II crew with a 35mm f/2.8 lens on a Nikon, 10 second exposure at ISO 12800. Also visible are the Southern Cross, Coal Sack, and Large Magellanic Cloud. NASA photo

linked a few hours later, they were nothing short of stunning.

## FLIGHT DAY 7

### Long-Distance Call

Flight day 7 featured the first ship-to-ship communications from a deep-space spacecraft with the crew of Artemis II calling down to Expedition 74 astronauts Chris Williams, Jack Hathaway, Jessica Meir, and ESA astronaut Sophie Adenot on board the International Space Station, a distance of over 230,000 miles.

*“The thing that changed for me, looking back at Earth, was that I found myself noticing not only the beauty of the Earth, but how much blackness there was around it, and how it just made it even more special. It truly emphasized how alike we are, how*

*the same thing keeps every single person on planet Earth alive. We evolved on the same planet, we have some shared things about how we love and live that are just universal, and the specialness and preciousness really is emphasized when you notice how much else there is around it.”*

CHRISTINA KOCH  
TO JESSICA MEIR, EXPEDITION 74

### Science Debrief

Flight Day 7 included a post lunar flyby conference where the crew was debriefed by the science team after initial analysis of data, images, and voice notes transmitted overnight, and while the astronauts' memories of their observations were still fresh. We heard even more discussions about how the astronauts observed features on the Moon with and without the bright Earth in view,

### Go for Deep Sky Imaging

In a surprising request for a NASA mission, but a familiar one to us as amateur astronomers, at the end of Flight Day 7, Reid sent a request to mission control to turn off the lights on the external cameras so that the crew could conduct some deep-sky photography out the window of Integrity.

## FLIGHT DAY 8

With the science segment of the mission largely over, Flight Day 8 focused on some housekeeping tasks, such as repressurizing the cabin from 10.2 psi to 14.7 psi (concluding a test initiated on Flight Day 5), stowing the exercise equipment, and conducting some space-to-ground calls, including a live press conference.

In keeping with the continuity of the Apollo program, the Artemis II astronauts presented the American flag that was destined to be planted on the surface of the Moon by the Apollo 18 mission, which was cancelled in 1970 and never flown.

Additionally, Artemis II carried on

board the flag that was flown on STS-1 Columbia, the first Space Shuttle mission, STS-135 Atlantis, the final Space Shuttle mission, and DM-1, the first crewed flight of SpaceX's Dragon capsule to the International Space Station.

## FLIGHT DAY 9

Flight Day 9 was packing day, as we can all relate on the day before a return from a long trip away. Stowing equipment, reconfiguring the cabin, and reviewing the re-entry procedures occupied a large portion of Flight Day 9. Artemis II also conducted one final return trajectory correction burn to put it on its precise path home.

Also, as a reminder of Keplerian motion, Artemis II crossed inside the halfway point from the Moon back to Earth just over a day before reentry.

## FLIGHT DAY 10

Flight Day 10 was the grand homecoming. As Integrity rapidly approached Earth, the crew had the chance to get some final views of the Blue Marble as they rapidly approached our home planet.

There had been some trepidation about the performance of Orion's heat shield

when the capsule slams into the atmosphere going at a near-record 24,661.21 mph (mach 33), especially after seeing how the heat shield of Artemis I's Orion capsule incurred some damage during its reentry. Mission planners had modified the approach to a more lofted entry, which put less stress on the parts of the heat shield that incurred damage on Artemis I. This had engineers, mission planners, and the crew confident that Integrity and her crew would return without cause for concern.

One last maneuver placed Integrity on its final entry corridor, and the ship moved to an attitude to jettison its service module, which performed extremely well during the entire flight. We had incredible views of the separation, and the spacecraft maneuvered into an attitude to prepare for entry interface, after which an expected six-minute period of radio blackout was encountered.

Integrity splashed down at 8:07pm EDT, at a mission elapsed time of 9 days, 1 hour, 32 minutes and 15 seconds, with a total distance traveled of 694,481 miles. After an entry corridor range of 1,957 miles, Integrity splashed down within one mile of its targeted coordinates.

Recovery and crew extraction took approximately 90 minutes, and when the hatch first opened, all I could think of was how wonderful it must have been to smell the ocean for the first time after being so far away for ten days.

It was only after Reid, Victor, Christina, and Jeremy were back on Earth that the significance of it all began to settle in. Do I remember when humans flew to the Moon? My lifelong answer of "no one has been to the Moon in my lifetime" was no longer true.

The following day, the Artemis II crew was back in Houston for their post-landing press conference, and they had some inspiring words to say.

*"I have absolutely no idea what to say. Twenty-four hours ago Earth was that big out the window and we were doing Mach 39 and here we are back at Ellington back at home."*

*"It's a special thing to be a human, and it's a special thing to be on planet Earth."*

REID WISEMAN

*"I have not processed what we just did, and I'm afraid to even start trying."*

VICTOR GLOVER

*"A crew is inescapably, beautifully, dutifully linked. So, when we saw tiny Earth, people asked our crew, what impressions we had. And honestly, what struck me, wasn't necessarily just Earth, it was all the blackness around it. Earth was just this lifeboat hanging undisturbingly in the universe. I know I haven't learned everything that this journey has yet to teach me, but there's one new thing I know, and that is, planet Earth, you are a crew."*

CHRISTINA KOCH

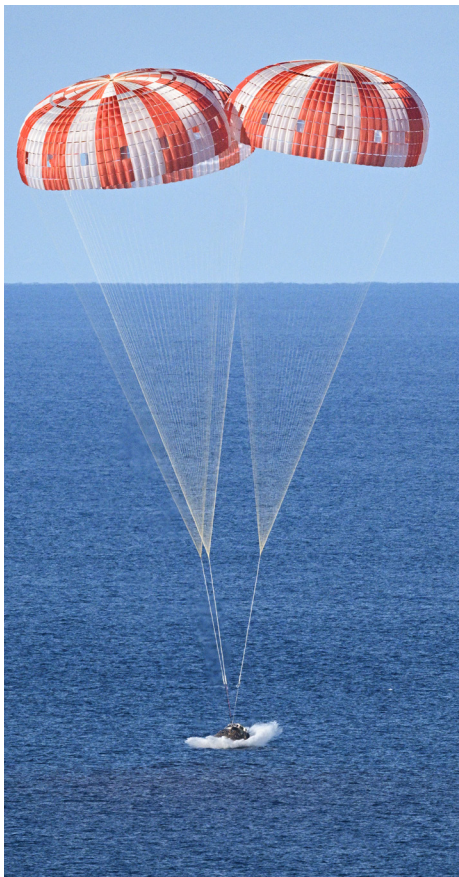
*"You haven't heard us talk a lot about the science, the things we learned, and that's because, they're there, and they're incredible. But, it's the human experience that is extraordinary for us. And it sounds like ... for you, too."*

*"I would suggest to you that, when you look up here, you're not looking at us. We are a mirror reflecting you. And if you like what you see, then just look a little deeper. This is you."*

JEREMY HANSEN

So where do we go from here? Never stop exploring. We have a whole universe to explore, and, as we can look to the Moon as inspiration, there is always something fascinating to discover, even in our own backyards, parks, and wild spaces.

As for the Artemis program, the journey continues, and for now, progress is being made. At the end of April 2026, the core stage for the next Artemis flight, Artemis III, arrived at the Kennedy Space Center in Florida to begin assembly and stacking. Originally, the next flight was in-



After a record-setting and historic 10-day flight, Integrity splashed down in the Pacific Ocean at 7:00pm EDT on April 10. NASA photo

tended to be the first lunar landing mission of the Artemis program, but the schedule has been revised in order to reduce the interval between flights, as well as to test and prepare for crew operations with lunar hardware. The mission will remain in Earth orbit, with the crew conducting rendezvous and docking procedures with lunar landing hardware provided by one or both of NASA's commercial partners SpaceX and Blue Origin. The mission, which will somewhat resemble the profile of Apollo 9, is scheduled to launch no earlier than late 2027.

We look forward to meeting our next crew of lunar explorers, as well as having many more inspiring conversations with the Integrity's first crew. Oh, and there's a whole lot more science, and about 7,000 photos of the Moon that we'll be seeing more of very soon.

Welcome to the Artemis Generation.



Moon Joy! The Artemis II crew, bonded. NASA photo

## REFERENCES & ADDITIONAL INFORMATION

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<https://www.nasa.gov/centers-and-facilities/johnson/artemis-ii-mission-milestones-an-image-and-video-recap/>

### Artemis II Mission Coverage

<https://www.youtube.com/playlist?list=PL2aBZuCeDwlQvNtHhNJtarm9OewQwVntv>

### Artemis II Flight Day Highlights

<https://www.nasa.gov/gallery/artemis-ii-flight-day-highlights/>

### NASA's Artemis II Crew Flies Around the Moon (Official Broadcast)

<https://www.youtube.com/live/z-j1uxBmis0>

### Artemis II Flight Day 6: Crew Ready for Lunar Flyby

<https://www.nasa.gov/blogs/missions/2026/04/06/artemis-ii-flight-day-6-crew-ready-for-lunar-flyby/>

### Artemis II Flight Day 6: Lunar Flyby Updates

<https://www.nasa.gov/blogs/missions/2026/04/06/artemis-ii-flight-day-6-lunar-flyby-updates/>

### Artemis II Multimedia

<https://www.nasa.gov/artemis-ii-multimedia/>

### NASA Answers Your Most Pressing Artemis II Questions

<https://www.nasa.gov/missions/nasa-answers-your-most-pressing-artemis-ii-questions/>

### Meet NASA's New Artemis II Science Officers

<https://science.nasa.gov/missions/artemis/meet-nasas-new-artemis-ii-science-officers/>

### Artemis II: Observe the Moon Like an Astronaut

<https://www.nasa.gov/stem-content/artemis-ii-observe-the-moon/>

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### NASA's Artemis II Crew Eclipses Record for Farthest Human Spaceflight

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### Space-to-Space Call: NASA's Artemis II Astronauts and the International Space Station

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### NASA's Artemis II Mission to Fly Legacy Keepsakes with Astronaut Crew

<https://www.nasa.gov/missions/artemis/artemis-2/nasas-artemis-ii-mission-to-fly-legacy-keepsakes-with-astronaut-crew/>

### NASA's Orion Artemis II Optical Communications System (O2O)

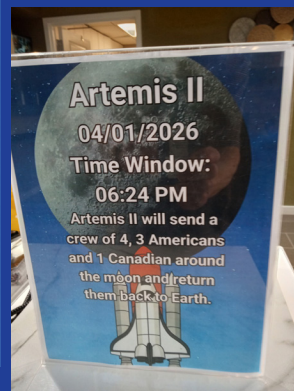
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### ANU provides laser communications support for NASA's Artemis II crewed moon mission

<https://www.anu.edu.au/news/all-news/anu-provides-laser-communications-support-for-nasas-artemis-ii-crewed-moon-mission>

### GoPro Cameras are Flying Aboard NASA's Historic Artemis II Mission Around the Moon

<https://gopro.com/en/us/news/gopro-cameras-aboard-nasa-artemis-ii-moon-mission>



## Artemis II Launch

Bob Janus managed to capture this image of Artemis II while attending a launch watch party in Florida.



Several Skyscrapers members turned out to Narragansett Brewery in Providence for the 9th **Astronomy on Tap** Rhode Island on Tuesday, April 21, 2026, to enjoy friendship, astronomy trivia, presentations, and some pints.




In attendance were Francine Jackson, Jim Hendrickson, Denise Turco, Terry Turner, Jay & Lisa Baccala, Dan Fountain & Rich Doherty, and our friends Ruth & Marc Gravel, who have attended several Skyscrapers presentations in the past.



**Dr. Vincent MacKay** from the Kavli Institute for Astrophysics and Space Research, Massachusetts Institute of Technology presented "The Blurriest Pictures Ever Taken" about how radio astronomy continues to advance our understanding of the universe.

**Alexis Ortega**, who successfully defended his Ph.D. at Brown University Department of Physics on April 14, presented "Was Einstein Wrong?: Modifying Gravity," an examination of Einstein's field equations with Chern-Simons-Gauss-Bonnet gravity.

 <https://flic.kr/s/aHBqjCS1on>

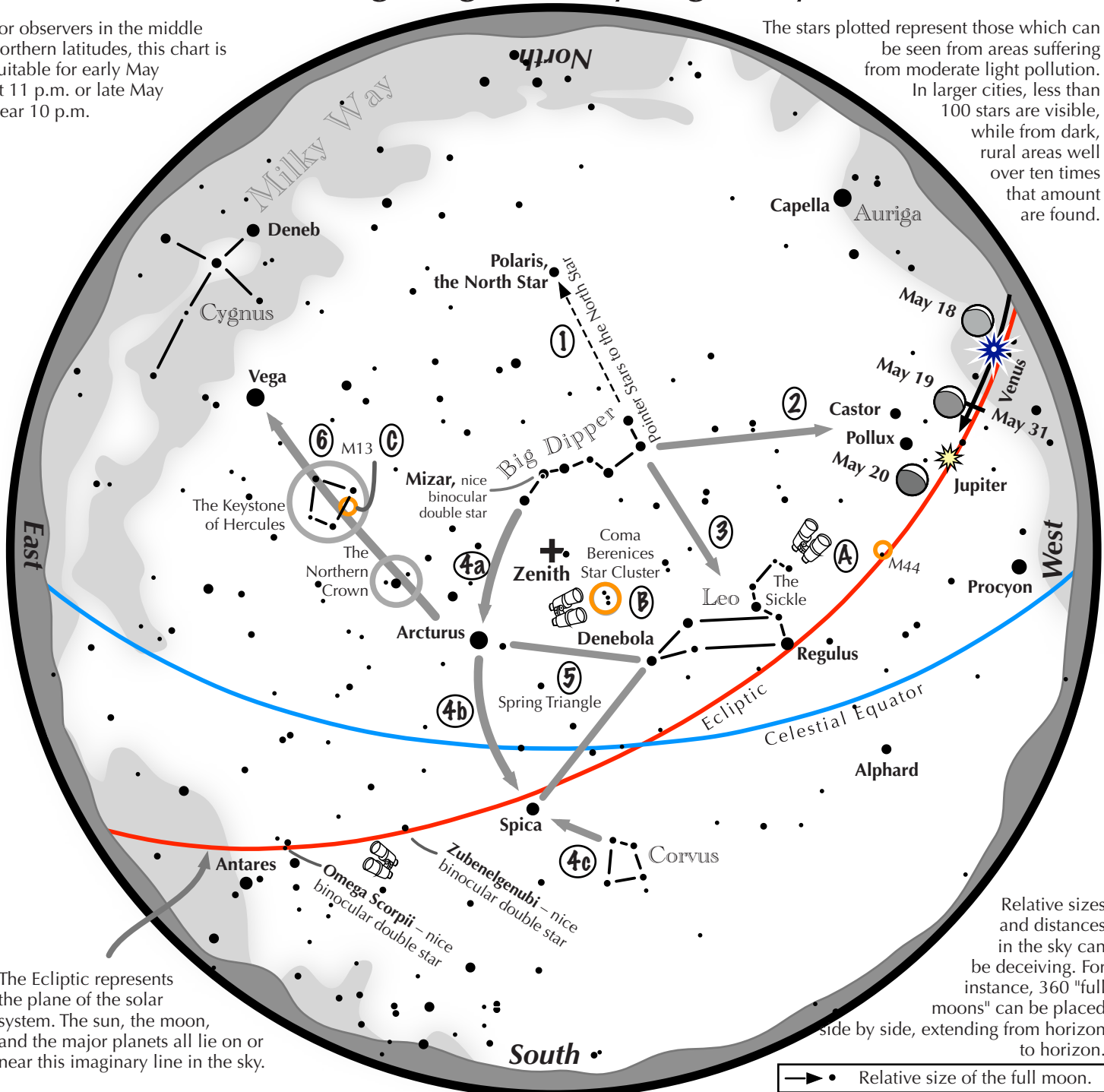
Follow Astronomy on Tap Rhode Island [www.instagram.com/aotri24](http://www.instagram.com/aotri24) and join us at the next event.

# Navigating the May Night Sky

2026

For observers in the middle northern latitudes, this chart is suitable for early May at 11 p.m. or late May near 10 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

## Navigating the May night sky: Simply start with what you know or with what you can easily find.

- 1 Extend a line northward from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Through the two diagonal stars of the Dipper's bowl, draw a line pointing to the twin stars of Castor and Pollux in Gemini.
- 3 Directly below the Dipper's bowl reclines the constellation Leo with its primary star, Regulus.
- 4 Follow the arc of the Dipper's handle. It first intersects Arcturus, then continues to Spica. Confirm Spica by noting that two moderately bright stars just to its southwest form a straight line with it.
- 5 Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
- 6 Draw a line from Arcturus to Vega. One-third of the way sits "The Northern Crown." Two-thirds of the way hides the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.

### Binocular Highlights

**A:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux. **B:** Look near the zenith for the loose star cluster of Coma Berenices. **C:** M13, a round glow from a cluster of over 500,000 stars.

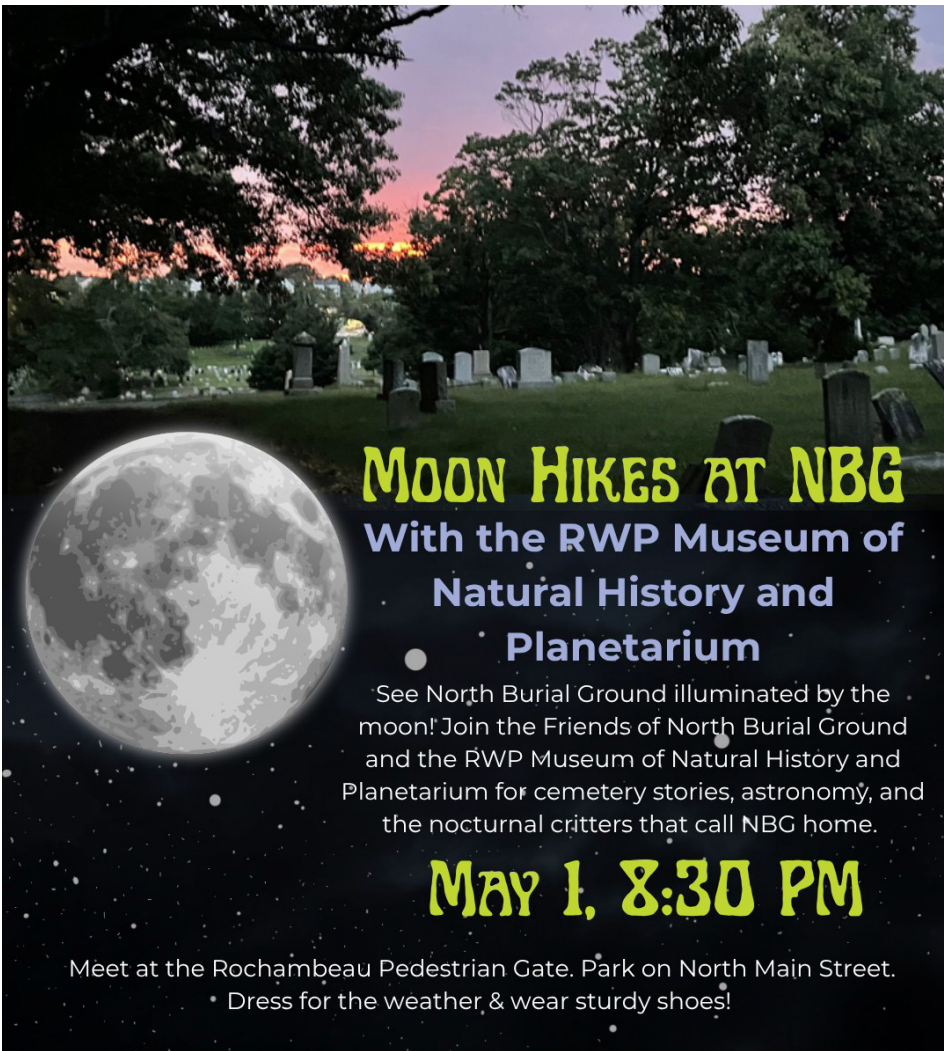


Astronomical League [www.astroleague.org/outreach](http://www.astroleague.org/outreach); duplication is allowed and encouraged for all free distribution.

# The Sun, Moon & Planets in May

This table contains the ephemeris of the objects in the Solar System for each Saturday night in May 2026. Times in Eastern Daylight Time (UTC-4). Ephemeris times are for Seagrave Observatory (41.845N, 71.590W).

Object	Date	RA	Dec	Const	Mag	Size	Elong	Phase(%)	Dist(S)	Dist(E)	Rise	Transit	Set
<b>Sun</b>	<b>2</b>	2 36.7	15 18.9	Ari	-26.8	1904.7	-	-	-	1.008	05:40	12:43	19:46
	<b>9</b>	3 03.7	17 18.1	Ari	-26.8	1901.4	-	-	-	1.009	05:32	12:42	19:53
	<b>16</b>	3 31.2	19 03.1	Tau	-26.8	1898.4	-	-	-	1.011	05:24	12:42	20:01
	<b>23</b>	3 59.2	20 32.3	Tau	-26.8	1895.8	-	-	-	1.012	05:18	12:43	20:07
	<b>30</b>	4 27.6	21 44.3	Tau	-26.8	1893.6	-	-	-	1.014	05:14	12:43	20:13
<b>Moon</b>	<b>2</b>	14 45.8	-21 19.9	Lib	-12.5	1782.1	174° W	100	-	-	20:09	00:58	05:41
	<b>9</b>	20 46.9	-20 46.5	Cap	-12.0	1780.9	100° W	59	-	-	01:49	06:44	11:48
	<b>16</b>	2 34.9	19 29.6	Ari	-8.0	1986.2	13° W	1	-	-	04:45	12:28	20:25
	<b>23</b>	9 53.5	13 02.9	Leo	-11.8	1923.7	84° E	45	-	-	12:35	19:21	01:55
	<b>30</b>	15 22.2	-24 08.7	Lib	-12.5	1777.0	164° E	98	-	-	20:08	00:32	04:52
<b>Mercury</b>	<b>2</b>	1 46.1	9 01.1	Psc	-0.8	5.3	14° W	88	0.372	1.261	05:17	11:54	18:34
	<b>9</b>	2 38.5	14 36.1	Ari	-1.6	5.1	7° W	97	0.333	1.315	05:20	12:20	19:21
	<b>16</b>	3 37.9	19 50.3	Tau	-2.3	5.1	2° E	100	0.309	1.318	05:31	12:52	20:16
	<b>23</b>	4 40.8	23 41.1	Tau	-1.4	5.4	10° E	91	0.314	1.255	05:49	13:28	21:07
	<b>30</b>	5 40.6	25 27.4	Tau	-0.7	5.9	17° E	75	0.344	1.140	06:13	13:59	21:46
<b>Venus</b>	<b>2</b>	4 30.7	22 48.3	Tau	-3.8	11.8	28° E	88	0.719	1.433	07:05	14:38	22:11
	<b>9</b>	5 07.1	24 07.2	Tau	-3.9	12.1	30° E	86	0.718	1.395	07:08	14:47	22:26
	<b>16</b>	5 43.9	24 53.0	Tau	-3.9	12.5	31° E	84	0.718	1.356	07:14	14:56	22:39
	<b>23</b>	6 20.8	25 04.2	Gem	-3.9	12.9	33° E	82	0.719	1.314	07:22	15:05	22:48
	<b>30</b>	6 57.4	24 40.6	Gem	-3.9	13.3	34° E	80	0.719	1.269	07:33	15:14	22:55
<b>Mars</b>	<b>2</b>	1 04.5	5 55.1	Psc	1.2	4.2	24° W	98	1.391	2.244	04:46	11:10	17:35
	<b>9</b>	1 24.4	7 58.7	Psc	1.2	4.2	26° W	97	1.395	2.231	04:30	11:02	17:35
	<b>16</b>	1 44.3	9 57.9	Psc	1.2	4.2	27° W	97	1.399	2.218	04:15	10:55	17:35
	<b>23</b>	2 04.3	11 51.7	Ari	1.2	4.2	29° W	97	1.404	2.204	04:01	10:47	17:34
	<b>30</b>	2 24.5	13 39.1	Ari	1.3	4.3	30° W	97	1.410	2.189	03:46	10:40	17:34
<b>1 Ceres</b>	<b>2</b>	3 11.4	13 53.8	Ari	8.8	0.3	9° E	100	2.794	3.787	06:22	13:16	20:10
	<b>9</b>	3 22.6	14 49.3	Ari	8.7	0.3	5° E	100	2.789	3.793	06:02	13:00	19:57
	<b>16</b>	3 33.9	15 42.1	Tau	8.6	0.3	3° W	100	2.783	3.792	05:42	12:43	19:45
	<b>23</b>	3 45.4	16 32.1	Tau	8.7	0.3	5° W	100	2.778	3.785	05:23	12:27	19:32
	<b>30</b>	3 57.0	17 19.1	Tau	8.8	0.3	8° W	100	2.773	3.771	05:04	12:11	19:19
<b>Jupiter</b>	<b>2</b>	7 22.8	22 28.3	Gem	-1.9	35.4	67° E	99	5.255	5.559	09:57	17:26	00:55
	<b>9</b>	7 27.2	22 19.6	Gem	-1.8	34.8	62° E	99	5.258	5.661	09:34	17:03	00:32
	<b>16</b>	7 32.0	22 09.6	Gem	-1.8	34.2	56° E	99	5.260	5.757	09:12	16:40	00:08
	<b>23</b>	7 37.1	21 58.4	Gem	-1.8	33.6	51° E	99	5.263	5.848	08:51	16:18	23:45
	<b>30</b>	7 42.5	21 45.9	Gem	-1.7	33.2	45° E	100	5.265	5.932	08:29	15:56	23:22
<b>Saturn</b>	<b>2</b>	0 37.4	1 40.2	Cet	0.9	16.1	32° W	100	9.481	10.316	04:33	10:41	16:50
	<b>9</b>	0 40.3	1 57.3	Cet	0.9	16.2	38° W	100	9.479	10.249	04:08	10:17	16:26
	<b>16</b>	0 43.0	2 13.4	Cet	0.9	16.3	44° W	100	9.477	10.172	03:42	09:52	16:02
	<b>23</b>	0 45.6	2 28.3	Cet	0.9	16.4	50° W	100	9.475	10.087	03:16	09:27	15:38
	<b>30</b>	0 47.9	2 41.8	Cet	0.9	16.6	57° W	100	9.473	9.993	02:50	09:02	15:14
<b>Uranus</b>	<b>2</b>	3 52.8	20 03.5	Tau	5.8	3.5	19° E	100	19.469	20.420	06:38	13:56	21:15
	<b>9</b>	3 54.4	20 08.5	Tau	5.8	3.4	12° E	100	19.467	20.452	06:11	13:30	20:49
	<b>16</b>	3 56.1	20 13.6	Tau	5.8	3.4	6° E	100	19.466	20.471	05:45	13:04	20:24
	<b>23</b>	3 57.8	20 18.6	Tau	5.8	3.4	0° W	100	19.465	20.477	05:19	12:39	19:55
	<b>30</b>	3 59.5	20 23.6	Tau	5.8	3.4	7° W	100	19.464	20.470	04:53	12:13	19:33
<b>Neptune</b>	<b>2</b>	0 14.2	0 05.8	Psc	7.9	2.2	38° W	100	29.882	30.665	04:16	10:18	16:20
	<b>9</b>	0 15.0	0 10.6	Psc	7.9	2.2	45° W	100	29.882	30.588	03:49	09:51	15:54
	<b>16</b>	0 15.7	0 15.0	Psc	7.9	2.2	51° W	100	29.881	30.501	03:22	09:24	15:27
	<b>23</b>	0 16.3	0 18.8	Psc	7.9	2.2	58° W	100	29.881	30.405	02:54	08:58	15:01
	<b>30</b>	0 16.9	0 22.2	Psc	7.9	2.3	65° W	100	29.881	30.302	02:27	08:31	14:34
<b>Pluto</b>	<b>2</b>	20 35.7	-22 48.8	Cap	14.6	0.2	96° W	100	35.506	35.384	02:06	06:40	11:14
	<b>9</b>	20 35.8	-22 50.1	Cap	14.5	0.2	103° W	100	35.510	35.272	01:39	06:13	10:47
	<b>16</b>	20 35.7	-22 51.7	Cap	14.5	0.2	110° W	100	35.515	35.163	01:11	05:45	10:19
	<b>23</b>	20 35.6	-22 53.7	Cap	14.5	0.2	116° W	100	35.520	35.059	00:44	05:17	09:51
	<b>30</b>	20 35.3	-22 55.9	Cap	14.5	0.2	123° W	100	35.525	34.961	00:16	04:50	09:23



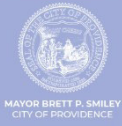
# MOON HIKES AT NBG

## With the RWP Museum of Natural History and Planetarium

See North Burial Ground illuminated by the moon! Join the Friends of North Burial Ground and the RWP Museum of Natural History and Planetarium for cemetery stories, astronomy, and the nocturnal critters that call NBG home.

### MAY 1, 8:30 PM

Meet at the Rochambeau Pedestrian Gate. Park on North Main Street.  
• Dress for the weather & wear sturdy shoes!



North Burial Ground



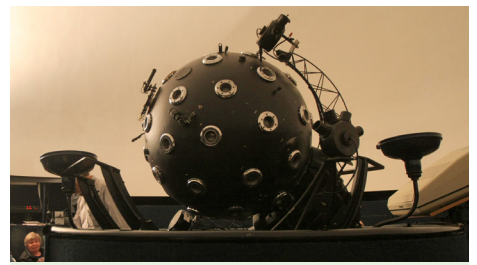
Providence Parks



MUSEUM OF NATURAL HISTORY AND PLANETARIUM  
Roger Williams Park



FRIENDS OF NORTH BURIAL GROUND  
PROVIDENCE, RI • EST. 1700



## Area Events

**MAY 22**

### Space for Everyone: Astronomy Symposium

Springfield Museums, Springfield, MA

<https://springfieldmuseums.org/program/space-for-everyone-astronomy-symposium/>



Scituate Heritage Trail

Historic Scituate, Rhode Island



## Globe at Night

### Get Out and Observe the Night Sky!

Engage people worldwide in observing the nighttime sky.

Encourage students and families to participate in citizen-science with a hands-on learning activity.

Gather light pollution data from an international perspective to monitor sky brightness and its effects.

[globeatnight.org](http://globeatnight.org)

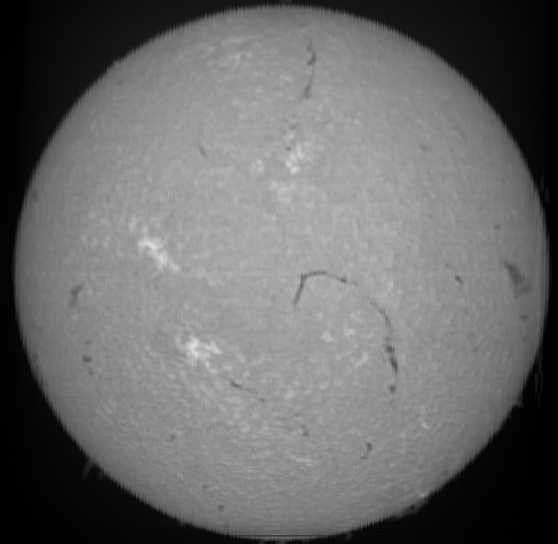
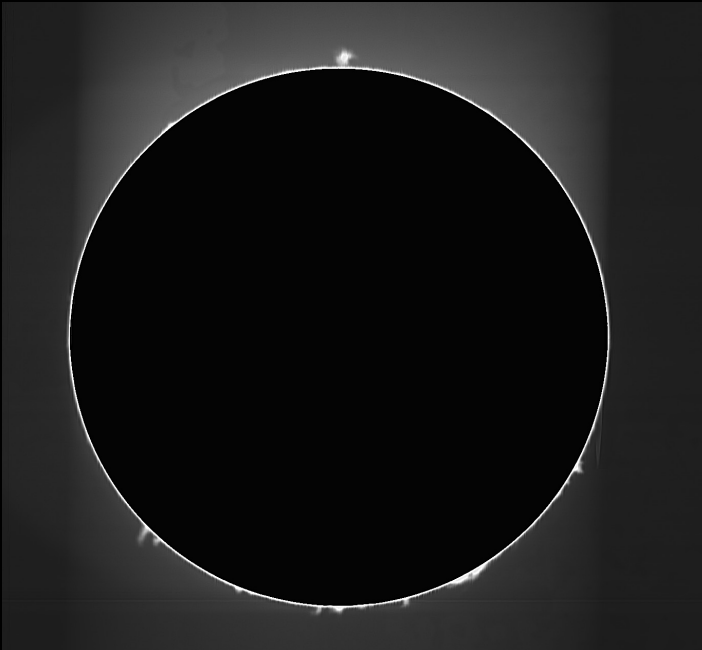
# 2026

- January 10-19
- February 9-18
- March 10-19
- April 9-18
- May 8-17
- June 6-15
- July 6-15
- August 4-13
- September 2-11
- October 2-11
- November 1-10
- November 30-December 9





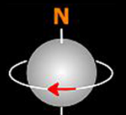
# Photo Gallery



## April 12 Solar Activity by Conrad Cardano

A beautiful day. I wanted to get this done before the Red Sox game. Photo taken with: Williams Optics 71mm Apo with 0.8x reducer; Solex Spectrohelioscope attached; ASI 294mm camera; 60 videos were taken with SharpCap.; processed with SPEC\_INIT and stacked with Autostackert for the final image.

## Phases of Venus by Gregory T. Shanos Longboat Key, Sarasota, Florida



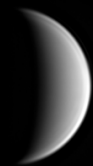
2023-01-07  
22h 53.8 m UT  
Mag: -3.9 Phase: 95% Dia: 10.5"



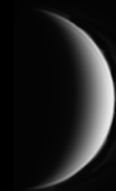
2023-04-07  
22h 45.4m UT  
Mag: -4.1 Phase: 75% Dia: 14.6"



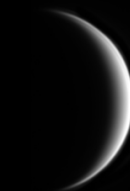
2023-05-29  
22h 44.8m UT  
Mag: -4.3 Phase: 53% Dia: 22.1"



2023-06-27  
00h 27.8m UT  
Mag: -4.4 Phase: 35% Dia: 31.5"



2023-07-13  
00h 18.5m UT  
Mag: -4.5 Phase: 22% Dia: 40.4"



2023-07-22  
23h 55.7m UT  
Mag: -4.4 Phase: 13% Dia: 47.4"



2023-07-30  
23h 26.7m UT  
Mag: -4.3 Phase: 6% Dia: 52.9"

Meade LX200 GPS 10-inch SCT 2500mm f/10  
ZWO ASI 290MM monochrome camera Prime Focus  
Antlia 850nm Infrared longpass filter



## Messier 51, Messier 104 & Messier 108 by Jeff Padell

The Seestar scopes are excellent for not just beginners but also for people on a budget. They are really easy to use and set up and come with everything you need except a smart phone which most of us have anyway. They are extremely portable, fitting in the provided case or as I do, in a camera case. They give very good results straight from the scope without post processing. However they do have limitations, the images they give are

slightly soft although to beginners and most people they are very acceptable. As with any scope they benefit from dark skies. My skies here at home are Bortle 7-8 extremely light polluted but the Seestars do fine in those conditions. They do benefit from post processing to pull out faint nebulosity with programs such as Siril, Lightroom, or Pixinsight. They do not replace a dedicated astro imaging rig but for less than \$600 they can't be beat.

These shots are to show what the scopes can do. I was using the S50 last night but even though there were no large targets for the S30 Pro I decided to image M51 anyway. The S50 does well on galaxies and clusters of all types while the S30 and S30 Pro do well on large targets such as M31, M42, the Rosette Nebula, and M45 etc.

# Directions to Seagrave Memorial Observatory

## From the Providence area:

Take Rt. 6 West to Interstate 295 in Johnston and proceed west on Rt. 6 to Scituate. In Scituate bear right off Rt. 6 onto Rt. 101. Turn right onto Rt. 116 North. Peeptoad Road is the first left off Rt. 116.

## From Coventry/West Warwick area:

Take Rt. 116 North. Peeptoad Road is the first left after crossing Rt. 101.

## From Southern Rhode Island:

Take Interstate 95 North. Exit onto Interstate 295 North in Warwick (left exit.) Exit to Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.

## From Northern Rhode Island:

Take Rt. 116 South. Follow Rt. 116 thru Greenville. Turn left at Knight's Farm intersection (Rt. 116 turns left) and follow Rt. 116. Watch for Peeptoad Road on the right.

## From Connecticut:

- Take Rt. 44 East to Greenville and turn right on Rt. 116 South. Turn left at Knight's Farm intersection (Rt. 116 turn left) and follow Rt. 116. Watch for Peeptoad Road on the right.
- or • Take Rt. 6 East toward Rhode Island; bear left on Rt. 101 East and continue to intersection with Rt. 116. Turn left; Peeptoad Road is the first left off Rt. 116.

## From Massachusetts:

Take Interstate 295 South (off Interstate 95 in Attleboro). Exit onto Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.



47 Peeptoad Road  
North Scituate, Rhode Island 02857