

CLEVELAND MUSEUM *of* NATURAL HISTORY

THE STARGAZER

WINTER 2026

THE OBSERVATORY

The winter sky in the Northern Hemisphere offers some of the most breathtaking stargazing views of the year. One deep-sky treasure to look for is the Pleiades, or Messier 45—perhaps best known as the Seven Sisters. Nestled on the back of Taurus the Bull, this open star cluster resembles a tiny teacup of sparkling blue-white stars. Though it contains over a thousand stars loosely bound by gravity, your eyes will be drawn to its brightest members, glowing like a celestial jewel box. Best seen in December, the Pleiades reminds us of the beauty and mystery overhead. Can you spot the Seven Sisters this winter?

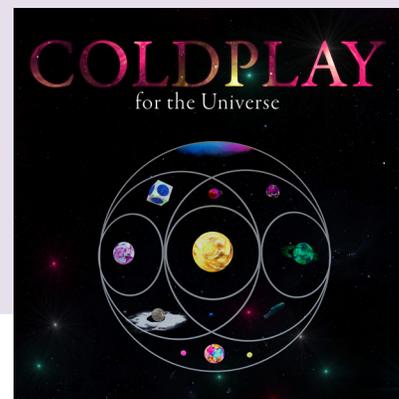


SHAFRAN PLANETARIUM NEWS

Two new planetarium shows debuted in the Nathan and Fanny Shafran Planetarium on December 21, 2025. Winter symbolizes the darkest and coldest days upon us here in Cleveland and the Northern Hemisphere, so join the astronomers under the dome for a seasonal flip. View our general public planetarium show, *Southern Exposure*, which will take you on a guided tour of the Southern Hemisphere to view the stars and other spectacular celestial objects never seen here in Ohio.

Hitching a Ride will be the children's planetarium show for this winter. This show will explore the most outrageous items that have made their way to space over the years. The Museum's astronomers will delve into the risky business of space travel and highlight the ways astronauts and scientists still manage to pepper in some fun. Fasten your seatbelts and get ready to uncover some surprising cargo that has made its way to low Earth orbit and beyond!

Dome Pro Tip: Experience your favorite Coldplay songs beneath the dome of Shafran Planetarium! *Coldplay for the Universe* is an immersive, one-hour musical that features a curated setlist of Coldplay songs against a backdrop of stunning 360-degree cosmic images. This is a must-see show for fans and all who wish to enjoy music in a new dimension! *Coldplay for the Universe* is showing now through March 29, 2026. Find showtimes and more at CMNH.org.



PERIOD PANORAMA

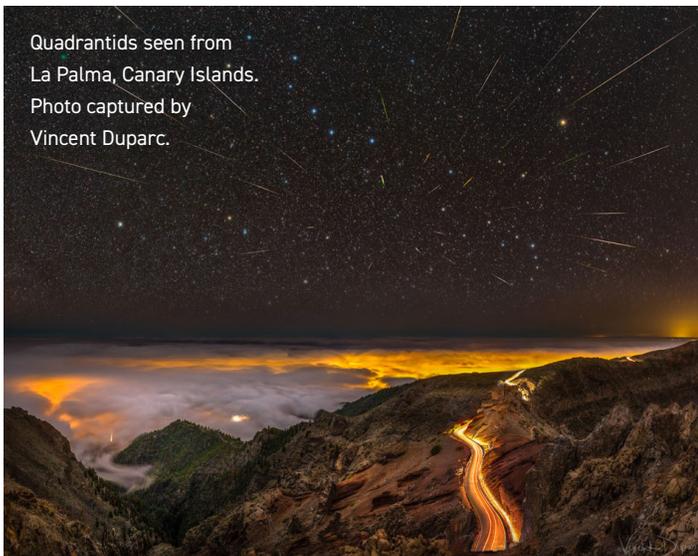
Throughout winter, the night sky has much to offer.

December 21: Winter solstice. Resulting from the tilt of Earth's axis, the December solstice marks the shortest day in the Northern Hemisphere (tilted away from the Sun) and the longest day in the Southern Hemisphere (tilted towards the Sun). After this day, the days here in Cleveland will grow longer and the nights will grow shorter.

December 25: Anniversary of the James Webb Space Telescope launch in 2021. Once launched, this space telescope took a whole month to reach the stable second Lagrange point, 1.5 million kilometers from Earth. Instruments were turned on and tested over the next few months, and we got our first look at Webb's observations in July 2022.

Month of January Highlight: Our last chance to view a meteor shower till the spring happens this month!

January 3-4: Quadrantids meteor shower. This shower falls annually around the New Year. You may see 5 to 10 meteors per hour coming from the debris field of asteroid 2003 EH1, a possible "dead comet." To locate the radiant point of the shower (where the meteors appear to originate), find the constellation Boötes, which is right by the now-obsolete constellation Quadrans Muralis. Best viewing time: midnight-7am.



Quadrantids seen from La Palma, Canary Islands. Photo captured by Vincent Duparc.

January 3: Full Wolf supermoon. This full Moon will be slightly larger than normal, due to its orbital point being slightly closer to Earth. It marks the first of 3 for 2026, the next ones being in the last 2 months of the year. It is sometimes called the "Wolf Moon," a nickname which refers to the howling of wolves on winter nights. The planet Jupiter will be close by it in the sky. Best viewing time: 6pm-9am.

January 10: Last quarter Moon & Jupiter at opposition. The bright star Spica in the constellation Virgo will be close by this half Moon, with the illuminated half pointing towards the star. Best viewing time: 12am-1pm. Also on this night, Jupiter will align in its orbit such that the Earth is directly between it and the Sun, making the planet appear large and bright in the sky. You can find the planet all night long in the constellation Gemini. Best viewing time: 6pm-7am.

January 18: New Moon.

January 26: First Quarter Moon. The Pleiades in the constellation Taurus will be close by this half Moon, with the illuminated half pointing away from the star cluster. Best viewing time: 12pm-2am.

Month of February Highlight: NASA aims to bring the Artemis II mission forward as soon as February, but still no later than the end of April. The launch date window, open from February to April, is determined by an efficient flow of engineering operations, orbital mechanics, atmospheric conditions, and day versus night launch scenarios. This exciting mission will take humans back to the Moon in a close flyby, advancing humanity's goal of reaching and exploring the Moon and paving the way for long-term deep space exploration.



Artemis II Crew Train for Night Launch Scenarios at Kennedy Space Center, Aug. 11, 2025. NASA/Kim Shiflett.

February 1: Full Snow Moon. This Moon is sometimes called the "Snow Moon," which refers to the heavy snowfall during this month. The planet Jupiter will be close by it in the sky. Best viewing time: 6pm-8am.

February 9: Last quarter Moon. The bright star Antares in the constellation Scorpius will be close by this half Moon, with the illuminated half pointing towards the star. Best viewing time: 1:40am-10:40am.

February 17: New Moon.

February 19: Mercury at its greatest eastern elongation and perihelion. Mercury will attain its highest point above the horizon in the evening. Although it appears farthest from the Sun in the sky, it will also be closest in its orbit to the Sun. Look towards the western sky just after sunset to see a very thin waxing crescent Moon, Saturn, and Venus joining Mercury. Best viewing time: 7pm.

February 24: First quarter Moon. The Pleiades in the constellation Taurus will be close by this half Moon, with the illuminated half pointing away from the star cluster. Best viewing time: 11am-2am.

February 28: Planetary Parade of 6 planets. Uranus and Neptune, in the Southwest and West respectively, can be seen with binoculars or telescopes. Mercury, Venus, and Saturn, all low in the West, can be seen as bright points of light with just your eyes. Jupiter, high in the Southeast, can also be seen with just your eyes. These planets aren't aligned in a straight line in space; rather, they are gathered close in their orbital paths on the same side of the Sun. Best viewing time: 7pm.



Month of March Highlight: Total lunar eclipse with full Worm Moon. On the night of March 2–3, the full Moon, also known the "Worm Moon," appears in the sky from 7pm to 7 am. This nickname refers to earthworms appearing as the soil warms for the start of spring, serving as a natural calendar. As a bonus during this full Moon, there will also be a total lunar eclipse. During the eclipse, the Moon will be aligned in its orbital tilt such that the Earth's shadow will fall upon its surface. Some sunlight, from where the Sun is positioned on the other side of Earth, will scatter through the Earth's atmosphere, with only the longer, redder wavelengths of light refracted onto the Moon's surface. The eclipse begins at 3:44am, with Earth's penumbra starting to cross the Moon. At 4:50am, the umbra will start to cross, and finally the total eclipse maximum will occur at 6:33am. Catch it low in the western sky right before the Moon sets at 7am! Best viewing time: 6am.



Artist's illustration of the metallic asteroid 16 Psyche. Credit: NASA/JPL-Caltech/ASU



Timelapse of the umbral shadow captured by Wang Letian in Zhangjiakou City, China on September 7/8, 2025.

March 11: Last quarter Moon. The bright star Spica in the constellation Libra will be close by this half Moon, with the illuminated half pointing towards the star. Best viewing time: 12am-1pm.

March 16: Comet 3I/ATLAS passes Jupiter. This comet is only the 3rd interstellar visitor discovered. It was observed and calculated to come from outside the Sun's gravitational force with a hyperbolic trajectory just this past July. It is crucial to gather as much information as possible about its chemical composition, how it interacts with the Sun, and clues about its origin before it heads past Jupiter back into interstellar space.

March 19: New Moon.



Image captured by Hubble on July 21, 2025, when 3I/ATLAS was 277 million miles from Earth. Image: NASA, ESA, David Jewitt (UCLA); Image Processing: Joseph DePasquale (STScI).

LOOK AHEAD

In May 2026, NASA's Psyche mission will complete a daring Mars flyby, passing within 2,700 miles of the Red Planet's surface and receiving a gravitational boost toward its namesake asteroid, 16 Psyche. The spacecraft will be the first to visit this large, metal-rich object, which is thought to be the exposed core of an ancient fledgling planet. Psyche is expected to arrive at its final destination in late July, 2029.

