

What's Up in the Night Sky for MAY



Presented by

Photonverse

**May 2025 Night Sky: Meteor Showers, Planet
Conjunctions & Deep Space Gems**

<https://www.youtube.com/watch?v=ViGwUt5qUFo&t=107s>

The Secrets of the Universe

**Night Sky Events in May 2025 You Shouldn't Miss |
Eta-Aquariid Meteor Shower | Micro Moon**

<https://www.youtube.com/watch?v=VsAa5FxPI8k>

NASA Needs You More Than Ever Before

Trump's 2026 budget request is expected to include [a staggering 47% cut](#) to NASA's science programs. It is obvious he has no idea that it would plunge NASA and science into the dark ages. Cuts would mean programs in operation could be terminated or curtailed and future programs may not come to be. One of those could mean the Mars sample return may not happen. Under this administration, science research and the future of science is in jeopardy.

NASA's Lucy Spacecraft Images Asteroid Donaldjohanson

APRIL 21, 2025 NASA Science Editorial Team

In its second asteroid encounter, NASA's Lucy spacecraft obtained a close look at a uniquely shaped fragment of an asteroid that formed about 150 million years ago. The spacecraft has begun returning images that were collected as it flew approximately 600 miles (960 km) from the asteroid Donaldjohanson on April 20, 2025.

The asteroid was previously observed to have large brightness variations over a 10-day period, so some of Lucy team members' expectations were confirmed when the first images showed what appeared to be an

elongated contact binary (an object formed when two smaller bodies collide). However, the team was surprised by the odd shape of the narrow neck connecting the two lobes, which looks like two nested ice cream cones. To learn more click the link: <https://rb.gy/bk7dle>



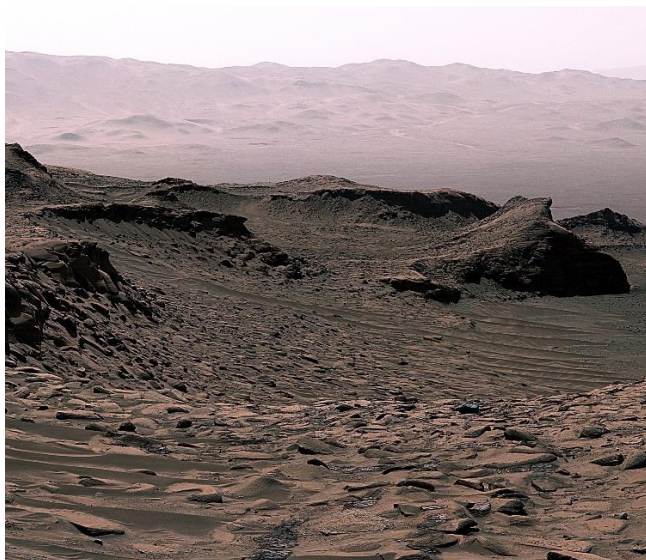
The asteroid Donaldjohanson as seen by the Lucy Long-Range Reconnaissance Imager (L'LORRI) on NASA's Lucy spacecraft during its flyby. This timelapse shows images captured approximately every 2 seconds beginning at 1:50 p.m. EDT (17:50 UTC), April 20, 2025. The asteroid rotates very slowly; its apparent rotation here is due to the spacecraft's motion as it flies by Donaldjohanson at a distance of 1,000 to 660 miles (1,600 to 1,100 km). The spacecraft's closest approach distance was 600 miles (960 km), but the images shown were taken approximately 40 seconds beforehand, the nearest ones at a distance of 660 miles (1100 km).

NASA/Goddard/SwRI/Johns Hopkins APL

NASA's Curiosity Rover May Have Solved Mars' Missing Carbonate Mystery

APRIL 17, 2025 Tara Friesen

New findings from NASA's Curiosity Mars rover could provide an answer to the mystery of what happened to the planet's ancient atmosphere and how Mars has evolved over time.



NASA's Curiosity Mars rover sees its tracks receding into the distance at a site nicknamed "Ubajara" on April 30, 2023. This site is where Curiosity made the discovery of siderite, a mineral that may help explain the fate of the planet's thicker ancient atmosphere. Credit: NASA/JPL-Caltech/MSSS

Researchers have long believed that Mars once had a thick, carbon dioxide-rich atmosphere and liquid water on the planet's surface. That carbon dioxide and water should have reacted with Martian rocks to create carbonate minerals. Until now, though, rover missions and near-infrared spectroscopy analysis from Mars-orbiting satellites haven't found the amounts of carbonate on the planet's surface predicted by this theory. For More information click: <https://rb.gy/bp8dza>

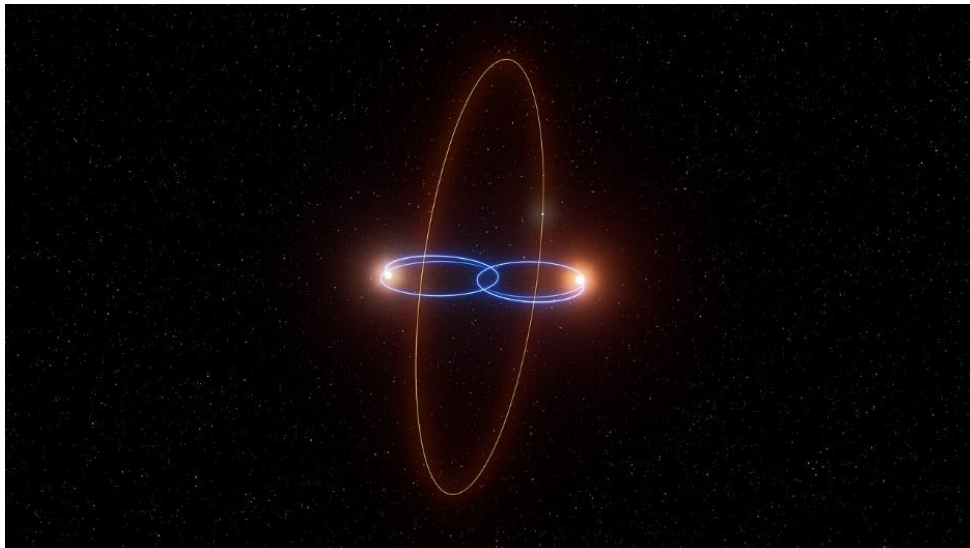
African Space Agency is Now Operational in Cairo, Egypt

This new international space agency, which has been in development since 2016, coordinates and implements space activities across several African nations and ensures access to space data and services across the continent. The agency's permanent headquarters were officially inaugurated on April 20.

The African Space Agency will be the primary point of contact for Africa's cooperation with Europe and other international partners. One of its key objectives, as outlined in the African Space Agency Act, is to enhance space missions across Africa, ensuring optimal access to space-derived data, information, services, and products. Once fully integrated into national, regional, and continental programs, AfSA will be crucial in eliminating duplication and inefficiencies within the African space ecosystem. As the official body overseeing and coordinating these efforts, it will also be responsible for effectively implementing the African Space Policy and Strategy and achieving the continent's space-related goals. Check out the website: <https://africanspaceagency.org/about-us/>

An Exoplanet Found Orbiting Two Brown Dwarfs at a Perpendicular Angle

Researchers using the European Southern Observatory's Very Large Telescope have found the first evidence of [a planet with a polar orbit around a pair of brown dwarfs](#) (objects smaller than stars but larger than planets).



An illustration of the exoplanet's perpendicular orbit around two brown dwarfs. Image credit: ESO / L. Calçada.

Facts Worth Sharing

- The known exoplanets fall along a range of sizes, masses, and orbital positions. Sizes and masses range from smaller and less massive than Earth to super-Jupiter types of worlds. Orbital positions range from very close to the parent star to very distant.
 - Astronomers are starting to find and measure atmospheres around distant exoplanets. This allows them to understand what gases exist in those gaseous envelopes.
 - Among other characteristics, astronomers can measure the surface temperatures, orbits, magnetic fields, and colors of exoplanets. As detection methods improve, they will be able to find out more about distant worlds.
 - At least one exoplanet has been found to have an exomoon, while another one is leaving behind a trail of material as it vaporizes while orbiting too close to its star.
 - The region around a star where liquid water could exist on the surface of a solid planet is called the habitable zone. Worlds orbiting in that zone are considered to be prime candidates where life could be supported.
 - More than 22 percent of Sun-like stars have Earth-sized planets in their habitable zones. These are important places to concentrate a search for possible life-bearing worlds.
 - The Kepler Mission was launched to search out distant worlds. It continues its search today. Other missions that have found distant worlds include the Hubble Space Telescope, the CoRoT mission from the European Space Agency, the WISE mission, and the Herschel spacecraft. Ground-based observatories continue to be an important part of the search for distant worlds.
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