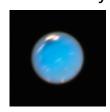
29Th Moon Of Uranus - S/2025 U1

written by Anoj Khadka | August 25, 2025



Astronomers may have uncovered yet another moon orbiting Uranus. Detected earlier this year with the James Webb Space Telescope (JWST), this tiny satellite could bring the total number of Uranus' known moons to 29. While the discovery is still undergoing peer review, preliminary findings strongly support the addition.

The moon, temporarily designated **S/2025 U1**, is estimated to span just six miles across-less than a third of the width of New York City. Its low reflectivity makes it much dimmer than Uranus' other small inner moons, which likely explains why Voyager 2 overlooked it during its 1986 flyby.

Observations that led to this discovery began on February 2, when JWST's Near-Infrared Camera captured ten exposures, each lasting 40 minutes. Analysis indicates that S/2025 U1 belongs to Uranus' group of 14 inner moons, positioned closer to the planet than larger moons like Ariel, Miranda, Titania, Oberon, and Umbriel.

Located roughly 35,000 miles from Uranus' center, the moon orbits between Ophelia and Bianca, just beyond the main ring system. JWST images reveal S/2025 U1 alongside 13 of Uranus' previously known satellites. Because of the wide variation in brightness, astronomers combined three separate image treatments into a single composite, allowing both the faint moons and the planet's atmosphere and rings to be visible. Although much remains unknown about this newly discovered moon, indicate even more hidden complexity within Uranus' inner system.

S/2025 U1 follows Uranus' most recent moon discovery, S/2023 U1, found just two years ago. Both moons will eventually receive official names approved by the International Astronomical Union.

References

- New Moon Discovered Orbiting Uranus Using NASA's Webb Telescope, NASA
- <u>Uranus may have a 29th moon</u>, Popular science