### What's Up in the Night Sky for OCTOBER



# Presented by Photonverse

October 2025 Night Sky - Meteors, Planets & Deep Sky Objects https://www.youtube.com/watch?v=GEyxogp3vpl

### **MindFull**

October 2025 Sky Guide: Harvest Moon & 7 Meteor Showers! https://www.youtube.com/watch?v=1o3wqcT777c

## The Weirdest Planets in the Universe | HD 189733 b, KELT-9 b & Others

**Click Image to Watch Video** 



### Top 5 Earth Like Planets You Need to Know!

**Click Image to Watch Video** 





## NASA Says Mars Rover Discovered Potential Biosignature Last Year

Jessica Taveau September 10, 2025



A sample collected by NASA's Perseverance Mars rover from an ancient dry riverbed in Jezero Crater could preserve evidence of ancient microbial life. Taken from a rock named "Cheyava Falls" last year, the sample, called "Sapphire Canyon," contains potential biosignatures, according to a <u>paper</u> published Wednesday in the journal Nature.

A <u>potential biosignature</u> is a substance or structure that might have a biological origin but requires more data or further study before a conclusion can be reached about the absence or presence of life. To read more click the link: <a href="https://tinyurl.com/4btsn9fj">https://tinyurl.com/4btsn9fj</a>

### **Fact Worth Sharing**

Cheyava Falls may be the first single place on Mars known to show signs of once hosting all three of life's main ingredients: liquid water, energy, and organic molecules. Billions of years ago, this rock could have met all the conditions life needs to thrive.

## EPSC-DPS2025: Study Questions Ocean Origin of Organics in Enceladus's Plumes

September 9, 2025



An artist's impression of plumes erupting onto the surface of Enceladus. Its fellow moon Titan is seen in the sky, and the distant Sun beyond. Image credit: ESA/Science Office.

Organic molecules detected in the watery plumes that spew out from cracks in the surface of Enceladus could be formed through exposure to radiation on Saturn's icy moon, rather than originating from deep within its subsurface ocean. The findings, presented during the EPSC–DPS2025 Joint Meeting in Helsinki this week, have repercussions for assessing the habitability of Enceladus's ocean.

'While the identification of complex organic molecules in Enceladus's environment remains an important clue in assessing the moon's habitability, the results demonstrate that radiation-driven chemistry on the surface and in the plumes could also create these molecules,' said Dr Grace Richards, of the Istituto Nazionale di Astrofisica e Planetologia Spaziale (INAF) in Rome, who presented the results at the meeting. To read more click the link: <a href="https://tinyurl.com/bdhshkmh">https://tinyurl.com/bdhshkmh</a>

## Where Are All the 'Hot Neptune' Exoplanets? Orbital Chaos May Have Booted Them Out

Robert Lea September 18, 2025



An illustration of an exo-Neptune orbiting its home star (Image credit: Robert Lea (created with Canva))

Astronomers have launched a new program known as ATREIDES to study a mysterious "desert" in space. But unlike the deserts of the planet Arrakis conquered by Paul Atreides in the "Dune" novels by Frank Hebert, this desert describes an absence of planets with masses up to around 20 times the mass of Earth that orbit close to their stars, planets scientists refer to as "hot Neptunes." Find out more at this link: <a href="https://tinyurl.com/2r3ppjjj">https://tinyurl.com/2r3ppjjj</a>

### Discovery of New Moon or Ring System Orbiting Mysterious Distant Dwarf Planet Quaoar

Paul Arnold September 11, 2025



Artist's impression of the icy Kuiper belt object 2002 LM60, dubbed "Quaoar" by its discoverers. Credit: NASA and G. Bacon (STScI); Science Credit: NASA and M. Brown (Caltech)

Astronomers have discovered what they think may be another moon orbiting a distant dwarf planet called Quaoar. This small, icy, egg-shaped planet in the far reaches of our solar system, beyond Neptune, is already known to have two rings and a moon, but this discovery was unexpected and accidental. To learn more click the link: <a href="https://tinyurl.com/4nerekvb">https://tinyurl.com/4nerekvb</a>





© Centi Astro-Space Activities 2025

#### **Centi Astro-Space Activities**

91 East Main Street
Brocton, New York 14716
United State of America
716 - 338 - 7596

Emails: centiastrospace@centiastrospace.com

centiastrospace@gmail.com

Website: www.centiastrospace.com

If you wish to no longer receive our newsletter or emails from us, please

**Unsubscribe**