

# What's Up in the Night Sky for December



**Presented by**

**Photonverse**

**December 2025 Night Sky - Meteors, Planets, & Deep Sky Objects**

<https://www.youtube.com/watch?v=udv6bd2AGhl>

**Cosmic Explorer**

**December 2025 Astronomy Guide: Moon, Planets, Meteors & More**

<https://www.youtube.com/watch?v=RkwHjhUC8lk>

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## TESS Finds 3 Earth-Sized Exoplanets Orbiting Binary Stars

Martijn Luinstra    November 9, 2025



Through international collaboration, a team of astronomers has confirmed two exoplanets and found hints of a third exoplanet at a binary star system known as TOI-2267. The planets were first found by NASA's Transiting Exoplanet Survey Satellite (TESS), using the team's own exoplanet detection

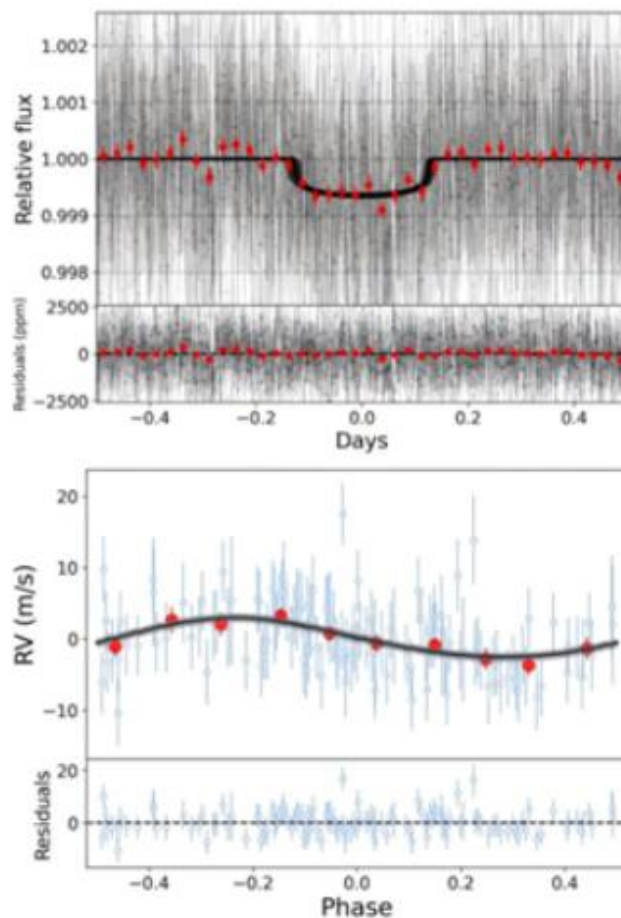
software. This tantalizing find might provide new insights into planet formation in binary systems. To read more click the following link:

<https://tinyurl.com/mphnxr7r>

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## Second exoplanet discovered in the TOI-1422 system

Tomasz Nowakowski    November 24, 2025



Phased TESS transits (top panel) and RV signal (bottom panel) of TOI-1422 c, along with the best fitted models, in black, and their residuals below each panel. The red circles represent the average of  $\sim 31$  minutes and  $\sim 83$  hours, respectively, while the gray areas represent the  $1\sigma$  deviation from each model. Credit: *arXiv* (2025). DOI: [10.48550/arxiv.2511.11492](https://doi.org/10.48550/arxiv.2511.11492)

European astronomers report the discovery of a second alien world in the TOI-1422 planetary system located some 500 light years away. The newfound exoplanet, which received designation TOI-1422 c, is nearly three times larger and about 14 times more massive than Earth. The discovery was presented in a [research paper](#) published Nov. 14 on the *arXiv* pre-print server.

TOI-1422, also known as TIC 333473672, is a star of spectral type G2V at a distance of approximately 505 light years away from Earth, estimated to be 4.6 billion years old. The star is similar in size and mass to the sun, and has an effective temperature of about 5,811 K. For more information click the link: <https://tinyurl.com/2jwjrr6t>

# How the James Webb Telescope Uncovers New Exoplanets and Redefines Habitable Worlds

Glanze Patrick    November 19 2025



The James Webb Space Telescope (JWST) has opened a new chapter in planetary science, giving astronomers the ability to observe JWST exoplanets with a level of detail never before possible. Launched as the successor to the Hubble and Spitzer telescopes, JWST is designed to study the faintest light from distant stars and planets, allowing scientists to examine their atmospheres, compositions, and conditions.

Its infrared capabilities make it uniquely powerful for scanning cosmic dust, peering through gas clouds and revealing the hidden characteristics of planets orbiting other stars. As one of the most advanced [space telescopes](#) ever built, JWST is transforming our understanding of planetary formation, atmospheric chemistry and the possibility of life beyond our solar system. These discoveries are reshaping scientific theories and expanding our understanding of the diversity of worlds in the universe. Click the link to read more: <https://tinyurl.com/ycyx843c>

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## *From the Last Month Newsletter*

### OCTOBER BLOG SERIES & EDUCATOR TOOLKIT

Chapters 1 - 4 of the *Alpha Centauri* blog series are now available as part of my October outreach. You can download all four chapters at no cost from my e-store. I've also created a free companion Educator Toolkit, which includes the full blog series and a mini course designed to support classroom and outreach use.

Visit the e-store: <https://www.centiastro.space.com/merch>

Once there, scroll down to **Digital Downloadables** and click the **SHOP** button to view all digital products.

**Or go directly to the items:**

- [Alpha Centauri Blog Series \(Chapters 1–4\)](#)
- [Alpha Centauri Educator Toolkit + Mini Course](#)

## What's Coming in November was Changed to December

Originally the next blog series was supposed to occur in November, but I needed to complete some other things during the month of November so starting in December, subscribers will receive Chapter 1 of each new monthly blog series. In 2026 I plan to double up during one of the months to stay on track. To access the full journey, including Chapters 2 - 4 and a synopsis there will be a one-time fee of **\$20 per series**.

Each month will also feature a separate Educator Toolkit available for a **\$45 license fee** per educator per grade or group. Schools could purchase a license to use across all grades for a **\$150 license fee**. The license includes:

- All four blog chapters
- A companion mini course with lessons and classroom resources and inquiry-based activities for educators, homeschoolers and outreach leaders.
- YouTube links to podcasts and "Chat Over Coffee" segments

This format allows anyone to access the blog series and educational resources on demand, without needing membership to anything. Educators and individuals can download what they need, when they need it -- no subscriptions, no barriers.

## Sponsorship Opportunity

I'm currently seeking sponsors who would like to gift educator toolkits to their preferred schools or outreach programs. Sponsored toolkits mean educators receive full access at no cost to them, helping expand science engagement where it's needed most.

If you have any questions about this new endeavor, feel free to reach out:

- Website: [www.centiastro.space.com](http://www.centiastro.space.com)
- Email: [centiastro.space@gmail.com](mailto:centiastro.space@gmail.com) or [centiastro.space@centiastro.space.com](mailto:centiastro.space@centiastro.space.com)
- Phone: 716-338-7596 (please leave a message with your contact info -- I return all calls but don't answer unknown numbers)



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### Centi Astro-Space Activities

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

Emails: [centiastro.space@centiastro.space.com](mailto:centiastro.space@centiastro.space.com)  
[centiastro.space@gmail.com](mailto:centiastro.space@gmail.com)

Website: [www.centiastro.space.com](http://www.centiastro.space.com)

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