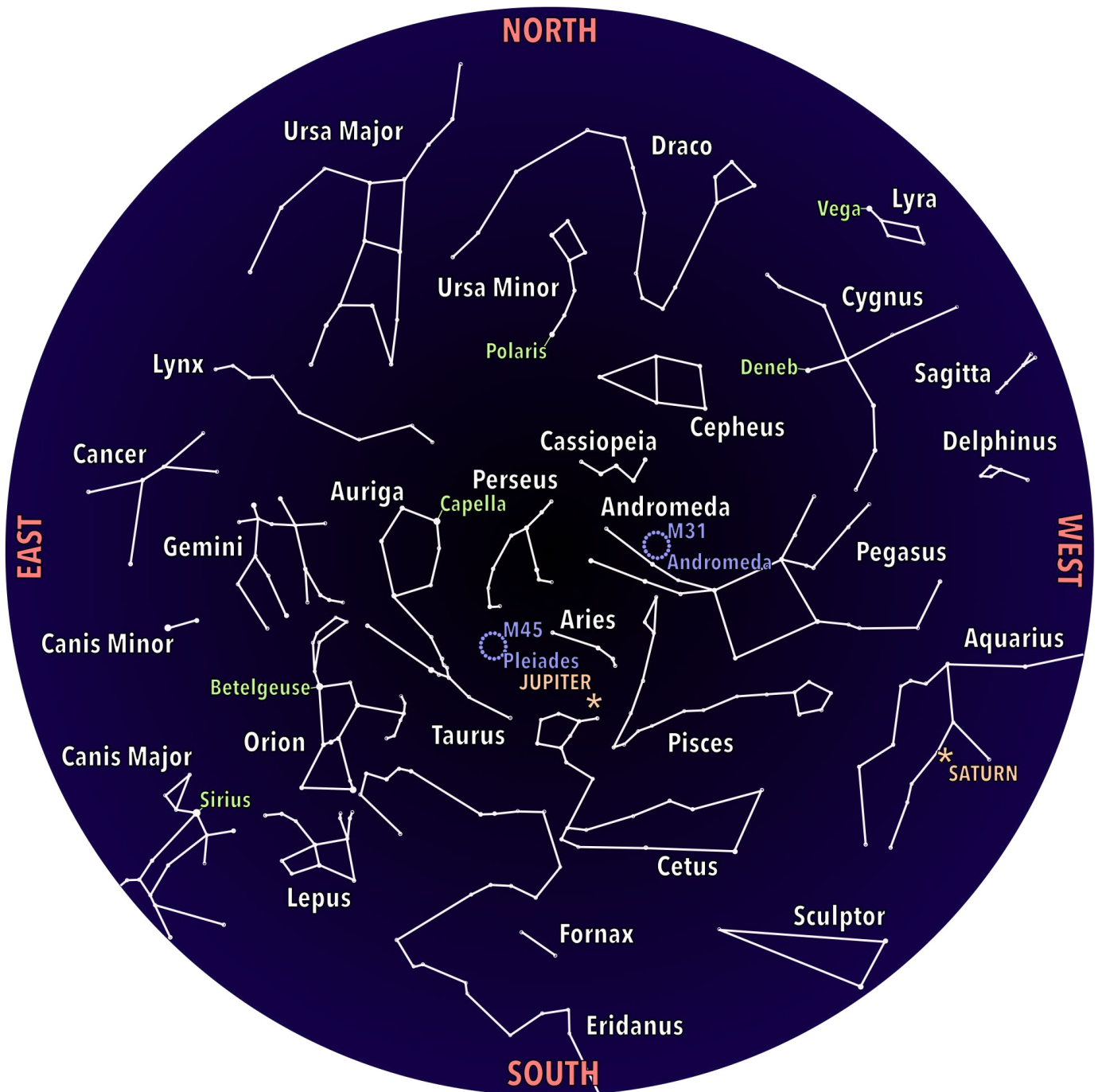


Winter 2024

# Buhl Planetarium & Observatory ASTRONOMICAL CALENDAR & STAR CHART

CARNEGIE  
**SCIENCE  
CENTER**



*Night sky from Pittsburgh, PA 7:30 pm EST mid-January*

**SKYWATCH**

Get tickets and check back for 2024 dates at [CarnegieScienceCenter.org](https://CarnegieScienceCenter.org).

Presented by 

**THIS SEASON'S SKYGAZING TOP PICKS**

**Dec. 9** — Venus/Moon conjunction near Spica. Pre-dawn.

**Dec. 14** — Geminids meteor shower. Visible south to south-west until dawn.

**Dec. 26** — Full Moon. First after the Winter Solstice. The Cold Moon.

**Jan. 4** — Quadrantid Meteor shower peak. Best before dawn.

**Jan. 14** — Crescent Moon and Saturn conjunction. Saturn's rings nearly edge on.

**Jan. 18** — Moon and Jupiter conjunction. After sunset to 1:30 am.

**Jan. 31** — M44 (Beehive cluster). Highest point at midnight.

**Feb. 11** — Moon in smiling crescent shape. Twilight.

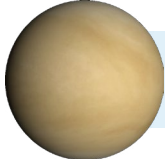
**Feb. 20** — Venus and Mars conjunction. Early morning before dawn. Southwest.

**Feb. 29** — Comet C/2021 S3 (PANSTARRS) predicted peak brightness 5:49 am. Southeast.

**WINTER PLANET VISIBILITIES**



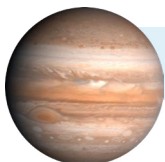
**Mercury (morning):** Brief appearances early December, February. East.



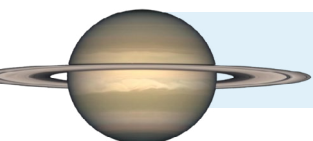
**Venus (morning):** December, January—early morning. February—dawn. East.



**Mars (morning):** January, February—dawn. East.



**Jupiter (evening):** December, January, February.



**Saturn (evening):** December, January. West-Southwest.

**MOON PHASES KEY**

New Moon ● First Quarter ◐ Full Moon ○ Third Quarter ◑

**MOON PHASES**

**Dec.** 5: ◐ 12: ● 19: ◐ 26: ○

**Jan.** 3: ◐ 11: ● 17: ◐ 25: ○

**Feb.** 2: ◐ 9: ● 16: ◐ 24: ○

**WHAT'S UP?** *Saturn is slowly sinking from our nighttime view.*

When it returns, its famous rings will nearly vanish. Saturn's 29-year orbit around the sun gives us a changing view of the ring tilt. The rings appear from maximum wide open shifting to edge on. By 2025, they will be an almost imperceptible line. Bid farewell to Saturn and its dazzling rings, for now.

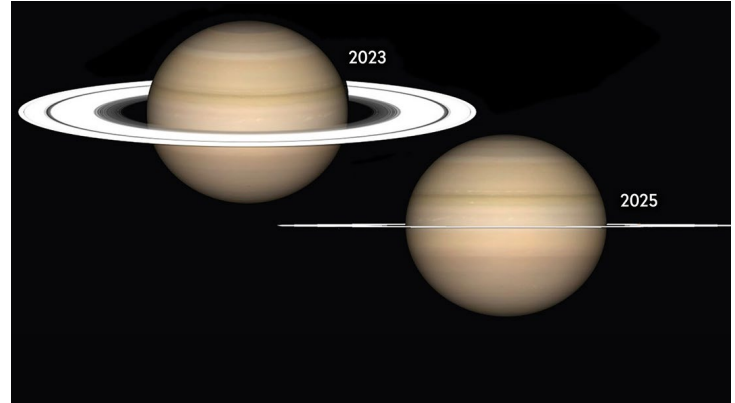


Image credit: NASA

**GET YOUR ECLIPSE GLASSES AT THE XPLOR STORE!**

**SPACE NEWS:**

*Peregrine has left the building.*

Pittsburgh company Astrobotic is heading for the Moon. Built on Pittsburgh's North Side, within sight of Acrisure Stadium, Peregrine Mission One would be the first commercial mission to touch down on any cosmic neighbor. It would be the first U.S. spacecraft in 50 years to perch on lunar regolith. Riding atop Vulcan Centaur rocket's inaugural voyage, Peregrine aims for Gruithuisen Domes near the Ocean of Storms. First launch window is Sun., Dec. 24. Stay tuned!



Image credit: Astrobotic

**STAR CHART FAQ**



**How do I use the star chart?**

Hold it out in front of you with the direction you're facing at the bottom of the chart. It works even better if you hold it above your head and look up at it.

**Why are east and west switched?**

They are only switched because you're used to looking at maps of the ground. Hold it above your head, and you'll see the directions line up just right.