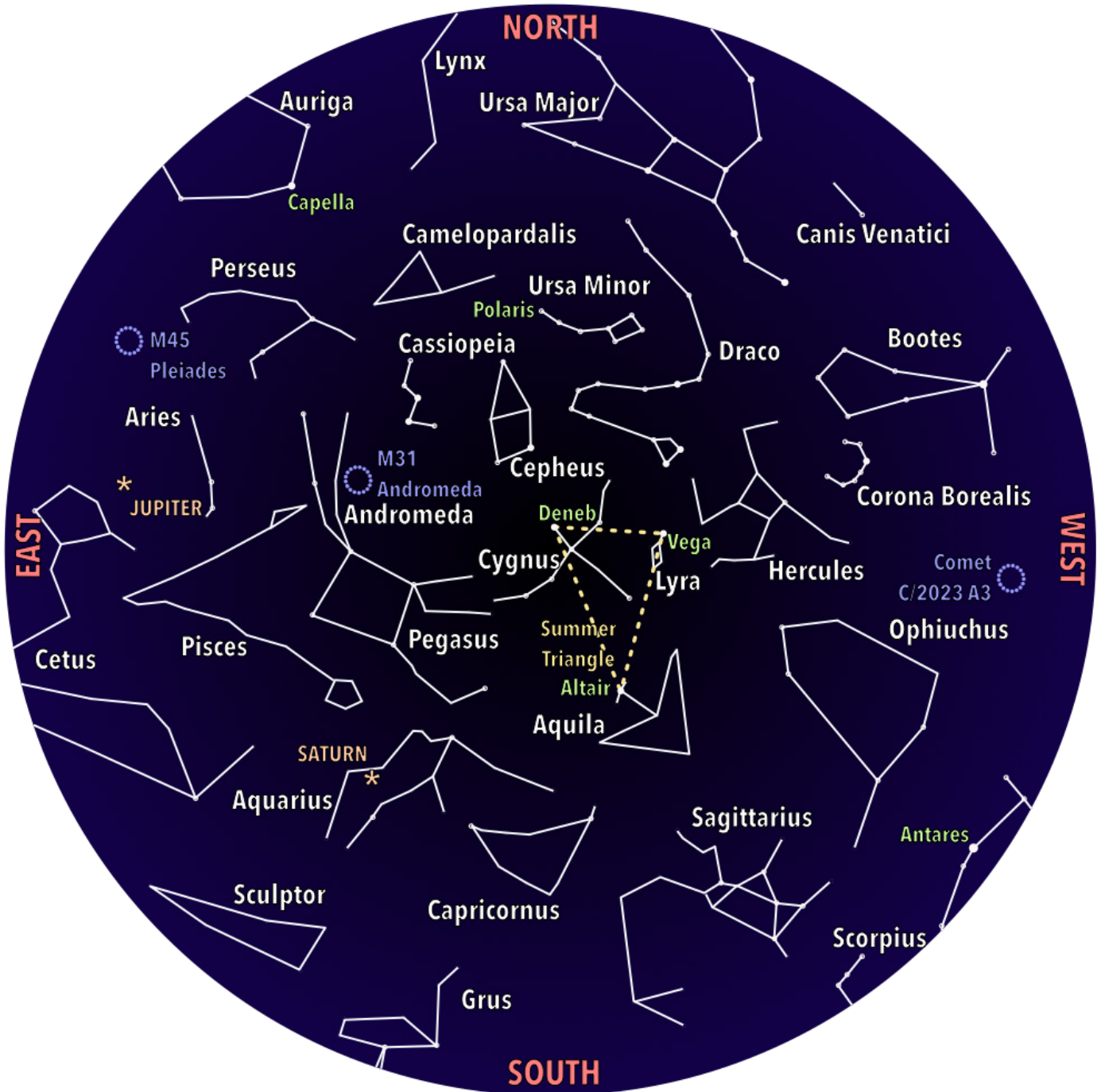


Autumn 2024

Buhl Planetarium & Observatory ASTRONOMICAL CALENDAR & STAR CHART

CARNEGIE
**SCIENCE
CENTER**



Night sky from Pittsburgh, PA 8:30 pm EST mid-October

SKYWATCH

The 2024 calendar is live! Buy tickets to upcoming SkyWatch events at
CarnegieScienceCenter.org/SkyWatch.

Presented by



THIS SEASON'S SKYGAZING TOP PICKS

Sept. 7 – Mercury highest point, brief visibility at sunrise.

Sept. 8 – Saturn at opposition. Visible most of night.

Sept. 17 – Full Moon. Harvest Moon. Partial Lunar eclipse.

Oct. 1 – Andromeda Galaxy (M31) highest point midnight. Binocular viewing.

Oct. 14 – Moon-Saturn conjunction. Visible most of night.

Oct. 17 – Full Moon (Supermoon)

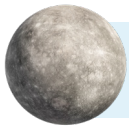
Oct. 21 – Orionid meteor shower. Visible midnight to pre-dawn

Nov. 4 – Conjunction of crescent Moon and Venus. Dusk.

Nov. 15 – Full Moon (Supermoon)

Nov. 17 – Leonid meteor shower. Visible midnight to pre-dawn.

AUTUMN PLANET VISIBILITIES



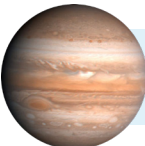
Mercury: Brief appearance in November (evening).
Brief appearance September (morning).



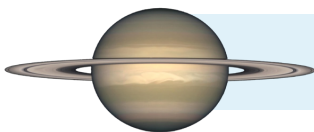
Venus: October and November (evening).



Mars: November (evening). September and October (morning)



Jupiter: November (evening). September and October (morning)



Saturn: September, October, November (evening).

MOON PHASES KEY

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

MOON PHASES

September 2: ● 11: ◐ 17: ○ 24: ◑

October 2: ● 10: ◐ 17: ○ 24: ◑

November 1: ● 9: ◐ 15: ○ 22: ◑

WHAT'S UP? Harvest Moon, Supermoon, and Partial Lunar eclipse. What a night!

The full moon closest to the Autumn Equinox is referred to as the Harvest Moon and will occur on Tues., Sept. 17. A combination of the Harvest Moon effect (when the Moon appears brighter a little longer due to the Moon rising closer to the same time several nights in a row) and the effect of the Moon at perigee (the Moon being closest to the Earth on its monthly orbit) may make it quite a spectacular September sight. Supermoon is the modern nickname of a full moon at perigee. September is the second of four supermoons in a row that we will experience. This supermoon will also have a partial Lunar Eclipse – with the Moon darkening slightly around 10:45 pm. Capping the evening is gleaming Saturn hovering nearby for most of the night.



SPACE NEWS: Europa

The launch for exploration of Jupiter's Moon, Europa, is aiming to take place Thurs., Oct. 10. NASA's eagerly anticipated Europa Clipper will study the icy moon in a series of flybys as it orbits giant Jupiter. It holds the honor of being the largest spacecraft NASA has yet developed for planetary exploration missions. When it arrives in 2030, we may be able to map the mystery of the subsurface ocean that is suspected to be found.

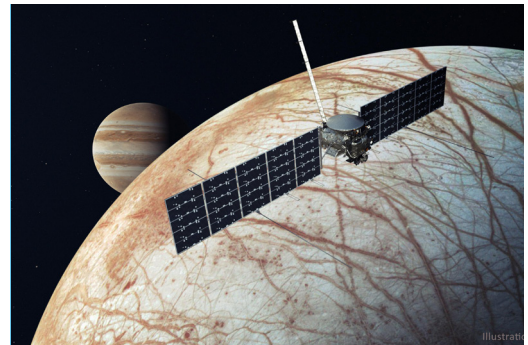


Image credit: NASA

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.