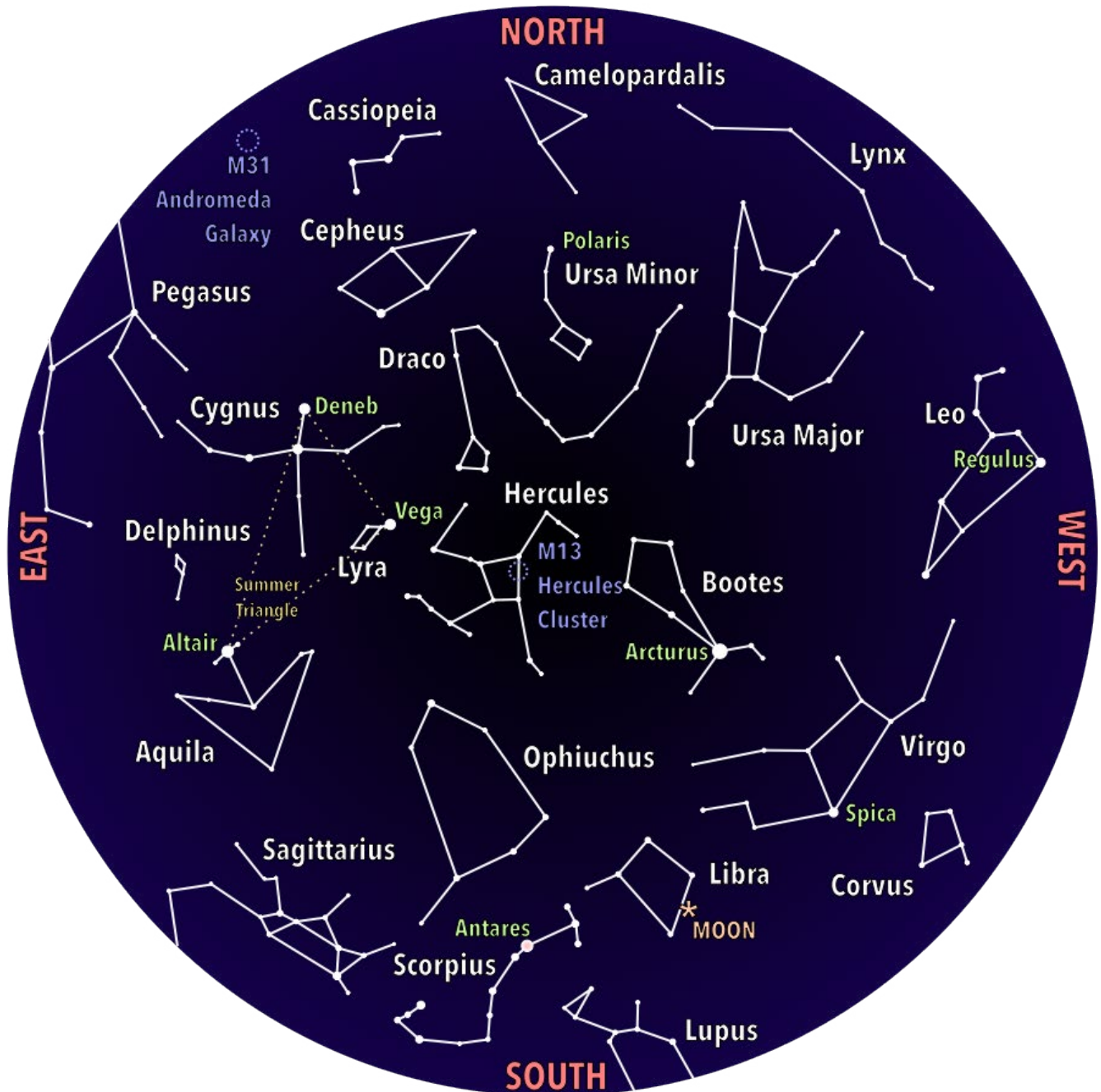


Summer 2024

# Buhl Planetarium & Observatory ASTRONOMICAL CALENDAR & STAR CHART

CARNEGIE  
**SCIENCE  
CENTER**



*Night sky from Pittsburgh, PA 10 pm EST mid-July*

## **SKYWATCH**

The 2024 calendar is live! Buy tickets to upcoming SkyWatch events at

[CarnegieScienceCenter.org/SkyWatch](https://CarnegieScienceCenter.org/SkyWatch).

Presented by



## THIS SEASON'S SKYGAZING TOP PICKS

**June 1** – Hercules Globular Cluster, M13, overhead at midnight. Binocular viewing.

**June 12** – Full Moon. Day after June Solstice. “Strawberry” Moon.

**June 27** – Moon-Saturn conjunction. South, pre-dawn.

**July 12** – Mercury at highest point. Brief visibility west-northwest.

**July 15** – Close approach of Mars and Uranus. Binocular viewing. Pre-dawn.

**July 23** – Lunar occultation of Spica. 11:18 pm. Southwest.

**July 29** – Close approach of Moon and Pleiades Cluster (M45). Early dawn.

**Aug 12** – Peak of Perseid meteor shower.

**Aug 14** – Mars-Jupiter conjunction. Visible 1:30 am to dawn. Southeast.

**Aug 27** – Mars, Jupiter, Moon conjunction. Southeast.

## SUMMER PLANET VISIBILITIES



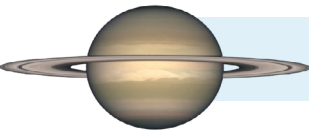
**Mercury (evening):** Brief appearance in July



**Mars (morning):** June, July, and August



**Jupiter (morning):** June, July, and August



**Saturn (morning):** June and July  
Visible in the evening in August

## MOON PHASES KEY

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

## MOON PHASES

**June** 6: ● 14: ◐ 21: ○ 28: ◑

**July** 5: ● 13: ◐ 21: ○ 27: ◑

**August** 4: ● 12: ◐ 19: ○ 26: ◑

## WHAT'S UP? Perseid Meteor Shower

The peak of the meteor shower is Mon., Aug. 12, but the day before and after are also great days to get away from city lights and observe in the warm summer night. The radiant point of the shower is the constellation Perseus which rises post-midnight. Up to 140 meteors per hour are expected. Saturn will rise around 10 pm. Late night viewers, watch for Jupiter and Mars rising around 1:30 am. The first quarter waning gibbous Moon will bring some light to the festivities.



Image credit: NASA, Bill Ingalls

## SPACE NEWS: Veggies in space

It can be pretty boring to eat the same food day after day. In space travel it is known as “food fatigue,” and it affects the astronauts on the International Space Station. NASA has come up with “Veggie,” a Vegetable Production System for plant growth in microgravity. It’s about the size of a carry-on suitcase and can grow about six plants. So far, cabbage, kale and zinnia flowers have been successfully grown in space. NASA hopes to add foods like tomatoes, peppers, and berries.



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.