

Fall 2021

Buhl Planetarium & Observatory

ASTRONOMICAL CALENDAR & STAR CHART



Night sky from Pittsburgh, PA 9 pm EST mid-October facing South

Look for future **Virtual Bite-Size Buhl** dates (Thursdays) or **SKYWATCH** (in-person) at CarnegieScienceCenter.org. Presented by

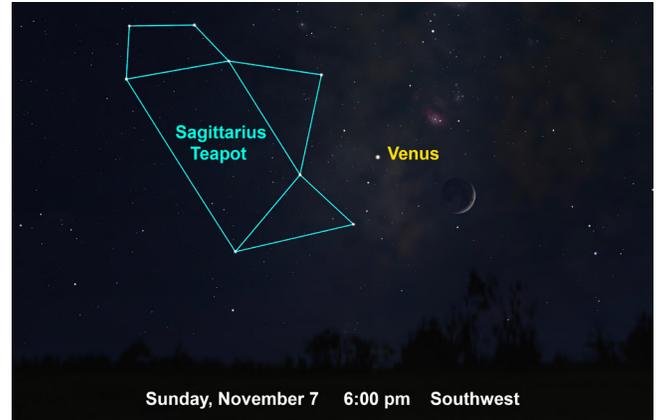


AUTUMN SKYGAZING: TOP PICS

Thurs	Sept 9	Moon to the right of Venus in Virgo South-southwest at dusk
Fri	Sept 10	Mercury, Spica, Venus, and crescent Moon South-southwest at dusk
Thurs	Sept 16	Moon below Saturn South after dusk to 2:20 am
Sat	Sept 18	Moon below Jupiter South after dusk to 3:30 am
Sat	Oct 9	Moon above Venus in claws of Scorpius South from dusk until 8:30 pm
Thurs	Oct 14	Moon-Jupiter-Saturn Triangle South-southeast, sunset until after midnight
Sat	Oct 16	Venus near Antares, heart of Scorpius Low in south, early evening
Sun	Nov 7	Moon and Venus in Sagittarius In front of Milky Way Galaxy center Low in southwest around 6 pm
Wed	Nov 17	Leonid meteor shower peak Predawn best viewing
Fri	Nov 19	Near total lunar eclipse: 98% totality Low in west before dawn

MOON PHASES

Sept	6: ● 13: ◐ 20: ○ 28: ◑
Oct	6: ● 12: ◐ 20: ○ 28: ◑
Nov	4: ● 11: ◐ 19: ○ 27: ◑



WHAT'S UP?

Venus, Our Evening "Star"

Venus has been reported as a UFO more than any other object. The clouds that obscure its surface mirror away most of the Sun's light. This is a prime time to witness the brilliance of our closest planetary neighbor. Follow Venus's appearance in the west, from dusk to about an hour and a half after sunset, as the "Evening Star" reaches its dazzling peak brightness in November.



SPACE NEWS:

Hubble, Hubble, Toil and Trouble

This spooky, splendid Hubble Space Telescope image reveals a galaxy 10 billion light-years away! Light from this far-flung galaxy is distorted by the gravity of a galaxy cluster closer to us. Gravitational lensing is like a cosmic magnifying glass for revealing distant objects. We see eerily warped duplicate images of this remote galaxy. After weeks of toil and troubleshooting, NASA successfully switched to backup hardware in July, and rebooted Hubble's iconic eye on the universe.

STAR CHART FAQ

How do I use the star chart?

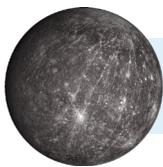
Hold it out in front of you with the direction you're facing at the bottom of the chart. It works even better if you hold it above your head and look up at it.

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.



AUTUMN EVENING PLANET VISIBILITIES



Mercury: Briefly at sunset early Sept



Venus: West at dusk
Visible for about 90 minutes after sunset



Jupiter: Visible all night after sunset



Saturn: Visible all night after sunset

MOON PHASES KEY

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