

# Tonight's Sky: August 2018

Your guide to constellations, deep-sky objects, planets, and events: Tonight's Sky.

Highlights of the August sky:

Bright Venus hangs low in the western sky at nightfall.

A backyard telescope reveals the sunlight reflecting off the clouds of Venus's thick atmosphere.

Jupiter, largest of the planets, shines in the southwest.

On the 15th, Jupiter, Venus, and the crescent moon form a beautiful arc in the sky.

A small telescope reveals Jupiter's major cloud bands.

In the southeast, Mars and Saturn shine on either side of Sagittarius.

Telescope views show two very different planets—one a gas giant with rings, the other a much smaller terrestrial, or Earth-like, world.

Stargazing on a hot August night reveals a multitude of wonders.

Lyra, the Small Harp, lies high in the late evening sky. Its main star is the great Vega, one of the brightest in the sky.

Look for Lyra by locating Vega and then the parallelogram of stars nearby.

Epsilon Lyrae, the bright star near Vega, is actually a wonderful quadruple-star system, known as the Double-Double.

In the parallelogram of Lyra lies the dramatic Ring Nebula. It is an expanding shell of glowing gas expelled by the dying star at its center.

The great constellation Cygnus, the Swan, flies high through the August night.

Using bright Vega as your guide star, look for the cross just to the east. Cygnus is also known as the Northern Cross.

Albireo, at the head of the Swan, is a showpiece for small telescopes. This spectacular pair of stars features contrasting colors of sapphire and golden topaz.

Deneb, the Swan's tail, is a supergiant star. If Deneb replaced the Sun in the center of our solar system, it would engulf Mercury and Venus.

On a clear night, hazy patches of nebulae can be seen by casually panning across the Cygnus area with binoculars.

The most prominent is the North America Nebula, an area of gas and dust illuminated by the nearby, brilliant star Deneb.

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Cygnus also hosts several clusters of stars. The easiest to find are M29 and M39.

M29 is found near the center of the Northern Cross. When viewed in a small telescope, it resembles a small square.

Best seen in binoculars, M39 is a loosely bound cluster of about 30 stars, just to the north of Deneb.

Just south of Cygnus lies the small constellation Vulpecula, the Little Fox, first charted by Polish astronomer Johannes Hevelius in the 17th century.

Vulpecula hosts the Dumbbell Nebula, which can be seen as a faint smudge in binoculars. A small telescope reveals its double-lobed shape.

Aquila, the Eagle, was known to the ancient Greeks as the great bird of Zeus.

Altair, the brightest star in Aquila, is only 16 light-years from Earth.

The bright stars of the summer night sky, Vega, Altair, and Deneb, make up the Summer Triangle.

Use binoculars to look for the Coathanger, located halfway between Altair and Albireo. This remarkable little group of stars forms a familiar pattern from our point of view.

Comet Giacobini-Zinner may become visible this month as it approaches the Sun in its 6-and-a-half-year orbit.

Its path will take it past Cassiopeia and Perseus during August, and then past Auriga in early September.

Use binoculars to look for its fuzzy glowing head and short, dim tail.

On August 11, skywatchers in remote northern Canada and Russia will be able to witness a partial solar eclipse as the Moon passes between Earth and the Sun.

Shortly after, the Perseid meteor shower—an always-anticipated feature of the August night sky—will peak.

Look for meteors during the early morning hours of August 12 and 13.

With the Moon out of the way, the sky will be dark, and several dozen meteors per hour may be seen under good conditions.

The night sky is always a celestial showcase. Explore its wonders from your own backyard.