

# Tonight's Sky: 2016

## October

Your guide to constellations, deep-sky objects, planets, and events. Tonight's Sky, highlights of the October Sky.

### Evening Planets

Venus and Saturn hang over the southwestern horizon after sunset.

Saturn shines higher in the sky, but moves closer to Venus at the end of the month.

Use a telescope to see the phase of Venus and to spy Saturn's rings.

Mars reigns over the southern sky as night falls.

A telescope may reveal some bright and dark features on the Red Planet.

### Constellations and Deep-Sky Objects

Pegasus, the great winged horse of Greek mythology, prances across the autumn night sky. His body is denoted by a large area of stars known as the "Great Square."

Pegasus hosts 51-Pegasi, the first Sun-like star known to have an extrasolar planet.

The brightest corner of the Great Square, Alpheratz, is also the brightest star in the constellation Andromeda. In Greek mythology, this princess was chained to a rock near the sea to appease a sea monster.

Within Andromeda's boundaries, look for M31, the Andromeda Galaxy, an island of billions of stars. On a clear, dark night it appears as a faint smudge of light.

Approximately 2.5 million light-years away, M31 is the closest spiral galaxy to our own Milky Way Galaxy and the most distant object you can see with your eyes alone. Binoculars and small telescopes reveal M31's glowing nucleus and spiral arms.

A smaller companion galaxy, M110, appears as a faint spot near the large galaxy.

The Andromeda Galaxy is slowly pulling in, and will eventually consume, another one of its small companion galaxies, M32.

### **Morning Planets**

In the early days of October, try to catch Mercury low in the eastern sky right before sunrise.

Mercury will move closer to the Sun and become lost in the glare as the month progresses.

Jupiter takes Mercury's place above the eastern horizon in the mornings of late October.

Aim a telescope at the gas planet to study its dark cloud bands.

### **Events**

The Orionid meteor shower peaks on the night of October 21<sup>st</sup> to the 22<sup>nd</sup>. However, bright moonlight may wash out all but the brightest meteors.

After midnight, look to the east, where the constellation Orion is rising.

Every few minutes you may spy a tiny remnant of Halley's Comet burning up high in the atmosphere.

### **Ending**

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