

Tonight's Sky: 2016

February

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

Evening Planets

A few hours after sunset, look for Jupiter shining in the eastern sky.

Use a telescope to reveal the gas planet's dark-colored bands.

Constellations and Deep-Sky Objects

The winter night sky, filled with brilliant stars, presents one of the best celestial views.

Orion, the Great Hunter of Greek mythology, dominates the winter sky. This constellation is among the easiest to recognize. It is full of young stars, dying stars, and many nebulae.

Betelgeuse, one of Orion's "shoulders," is a red supergiant star about 650 times bigger than the Sun. It shines with the brightness of tens of thousands of Suns.

Betelgeuse is near the end of its life. With the fuel at the star's core practically depleted, the core has contracted and heated, causing the outer gaseous layers of the star to swell.

Rigel, one of Orion's "knees," is a triple-star system made up of two smaller stars orbiting a blue supergiant. Rigel's blue supergiant star has a short lifespan.

Blue supergiant stars are much hotter than our Sun and use up their fuel quickly.

Orion's Belt is easy to spot. It is made up of three stars, Alnitak, Alnilam, and Mintaka.

From the left side of Orion's Belt, look down to the Great Orion Nebula. Although barely visible to the naked eye, it is the brightest diffuse gas cloud in the night sky. ("Nebula" is Latin for "cloud.") A small telescope unveils the details and grandeur of the nebula.

Embedded inside the Orion Nebula is the Trapezium, a group of hot young stars so brilliant they cause the surrounding gas to glow.

Canis Major, the Great Dog, is the faithful companion who follows in Orion's footsteps. Canis Major is dominated by the most brilliant star in the night sky, Sirius.

Sirius is actually a double system, containing a bright star and a much smaller and fainter companion. It is a mere 8.6 light-years away.

Scanning with binoculars just below Sirius will reveal a lovely cluster of stars called M41. It contains about 100 stars, including several red giants.

Stars in clusters like M41 were born together and are all about the same age.

Morning Planets

In the hours before dawn, you can find Mars and Saturn hanging in the southeastern sky.

A telescope will reveal Saturn's rings and perhaps some dark and light features on Mars.

Just before sunrise, Venus and Mercury peek above the southeastern horizon.

Bright Venus will be easier to spot than Mercury, which is dimmer and hangs lower in the sky.

Ending

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