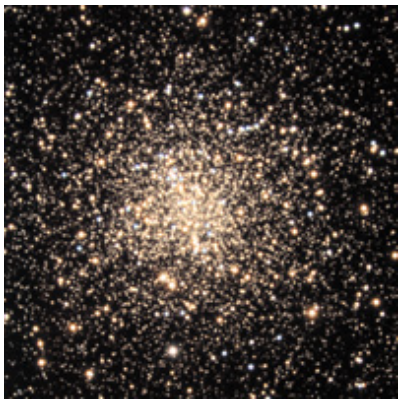
Kitt Peak Nightly Observing Program

Splendors of the Universe on YOUR Night!

Many pictures are links to larger versions.
Click here for the “Best images of the OTOP” Gallery and more information.



M4

M4 is a globular star cluster located near the bright, orange star Antares, in the constellation Scorpius. It is on the small side, as globular clusters go—only 70-75 light-years across. It is about 7,200 light-years away, which makes it possibly the closest globular cluster to our solar system.

M13 Hercules Globular

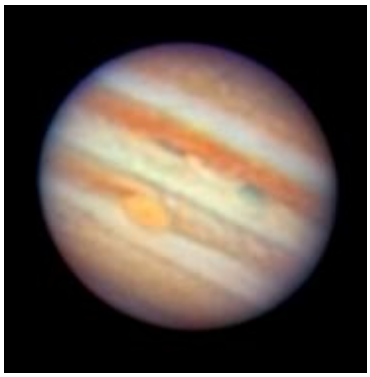
M13, the "**Great Globular Cluster in Hercules**" was first discovered by Edmund Halley in 1714, and later catalogued by Charles Messier in 1764. It contains 300,000 stars, and is 22,000 light-years away. Light would need over a century to traverse its diameter.

M7 Ptolemy Cluster

M7, also known as the "**Ptolemy Cluster**" is an open star cluster near the "stinger" of Scorpius. It is a group of suns in a gravitational dance, 25 light-years across and about 1,000 light-years away.

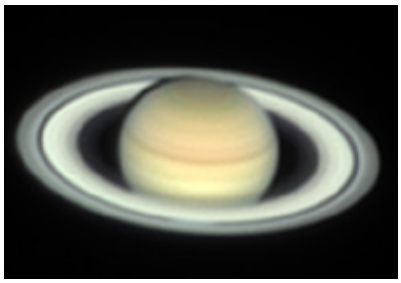
M57 (Ring Nebula)

M57: The Ring Nebula. This remnant of a dead star looks exactly as it's name says - a ring or doughnut shape cloud of gas. The nebula is about 2.6 lightyears across and lies about 2,300 lightyears away.



Jupiter

Jupiter is the largest planet in the Solar System, a “gas giant” 11 Earth-diameters across. Its atmosphere contains the Great Red Spot, a long-lived storm 2-3 times the size of the Earth. The 4 large Galilean satellites and at least 63 smaller moons orbit Jupiter.



Saturn

Saturn, the second-largest planet in the Solar System, is known for its showy but thin rings made of ice chunks as small as dust and as large as buildings. Its largest moon, Titan, has an atmosphere and hydrocarbon lakes; at least 61 smaller moons orbit Saturn.

Moon

The same side of the Moon always faces Earth because the lunar periods of rotation and revolution are the same. The surface of the moon is covered with impact craters and lava-filled basins. The Moon is about a fourth of Earth's diameter and is about 30 Earth-diameters away.

Albireo (β Cyg)

Named long before anyone knew it was more than one star, **Albireo** (β Cygni) comprises of a set of stars marking the beak of Cygnus, the swan. Through a telescope, we see two components shining in pale, but noticeably contrasting colors: orange and blue. The difference in color is due to the stars' difference in temperature of over 9000°C! The brighter orange component, Albireo A, is actually a true binary system, though we can't resolve two stars in the telescope. The fainter blue component, Albireo B, may be only passing by, and not gravitationally interacting with Albireo A at all. Albireo is about 430 light-years away.

Phil Yehle

Your Telescope Operator and Guide. Thank you for joining me this evening! See you soon!!

The web page for the program in which you just participated is at Nightly Observing Program. Most of the above images were taken as part of the Overnight Telescope Observing Program. For more information on this unique experience please visit Overnight Telescope Observing Program.