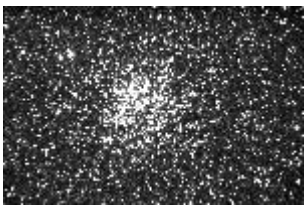
Kitt Peak Nightly Observing Program

Splendors of the Universe on YOUR Night!

Many pictures are links to larger versions.
Click here for the "Best images of the AOP" Gallery and more information.

Albireo (β Cygni) is a double star marking the beak of Cygnus, the swan. Its two components shine in contrasting colors, golden-orange and blue. Albireo is about 385 light-years away.



M11: The "Wild Duck Cluster," which just might look like a flock of wild ducks. This open cluster is 20 lightyears in diameter and 5,600 lightyears away.

M45: The Pleiades Star Cluster. A bright, nearby star cluster in the last stages of star formation. It has six to seven bright stars along with hundreds of fainter stars. It lies about 380 lightyears away and is around 100 million years old.

M42: The Great Orion Nebula. This is a region of star formation about 1,500 ly away. It is 30 ly across and contains enough material to make 10,000 stars the size of our sun.

M15: A distant globular cluster, 40,000 lightyears away. It has a few hundred thousand suns, and like most globular clusters, it is over 10 billion years old!

M31: The Andromeda Galaxy, our nearest major galactic neighbor. It is a spiral galaxy, lies 2,200,000 lightyears away and has a diameter of 180,000 lightyears. This galaxy contains as much material as 300 billion suns.

Venus, the second planet, is the brightest natural object in the sky other than the Sun and Moon and is often erroneously called the "morning star" or "evening star." It is completely wrapped in sulfuric acid clouds and its surface is hot enough to melt lead.

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.

Quick streaks of light in the sky called **meteors**, shooting stars, or falling stars are not stars at all: they are small bits of rock or iron that heat up, glow, and vaporize upon entering the Earth's atmosphere. When the Earth encounters a clump of many of these particles, we see a **meteor shower** lasting hours or days.

CHUCK DUGAN

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

Bob Martino

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The web page for the program in which you just participated is http://www.noao.edu/outreach/nop. Most of the above images were taken as part of the all-night observing program. For more information on this unique experience please visit http://www.noao.edu/outreach/aop.