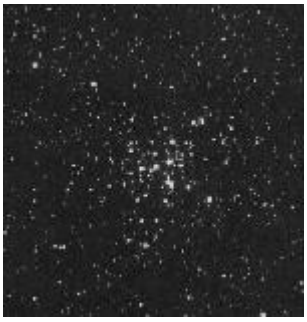
Kitt Peak Nightly Observing Program

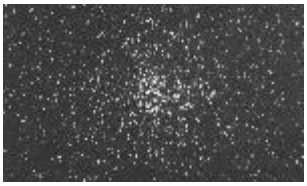
Splendors of the Universe on YOUR Night!

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

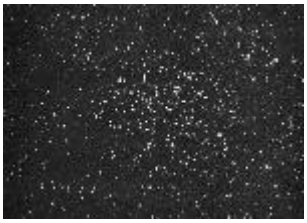
In the handle of the Big Dipper, **Mizar & Alcor** (ζ & 80 Ursae Majoris) or the "Horse & Rider" form a naked-eye double star. They are traveling through space together about 78 light-years away from us, and are separated by about 3 light-years. A telescope splits Mizar itself into two stars.



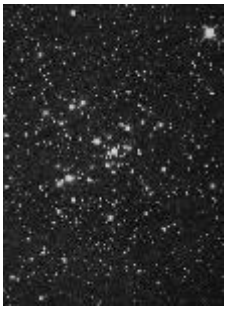
M36: One of three bright open star clusters in the constellation of Auriga. It lies about 4,000 ly away, is about 14 ly across, contains about 60 stars, and is about 25 million years old.



M37: The second of three bright open star clusters in the constellation of Auriga. It is the brightest and richest of the three. It lies about 4,400 ly away, contains about 150 stars with a diameter of about 25 ly, and is an old cluster at 300 million years old.



M38: The third of three bright open star clusters in the constellation of Auriga. It lies about 4,200 ly away, a diameter of about 25 ly, and is 220 million years old.



M41: An open star cluster just below Sirius, the brightest star in the sky. It contains about 150 stars spread out over 25 lightyears, and is 2,300 ly away. Aristotle described it in 325 B.C. as a "cloudy spot."

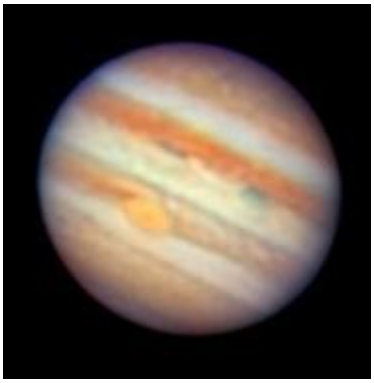
"Double Cluster" (NGC 884 and NGC 869): These two star clusters are a treat for binoculars and telescope alike. Each is a congregation of many hundred stars around 70 light years in diameter. These clusters are between 5000 to 7000 light years away.

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.

M81: A small spiral galaxy, seven million lightyears away. It is a disk of 50 billion suns or so, only a stone's throw (100,000 lightyears) from M82.

M82: This lumpy streak of an irregular galaxy is seven million lightyears away, and perhaps 30,000 lightyears across. There are vast gas clouds here, where suns are being born at an incredible rate.

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.



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 larger than Earth. The 4 large Galilean satellites and at least 59 smaller moons orbit Jupiter.

Jeronimo Cruz

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 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.