

October 2002

Snake River Skies

Magic Valley Astronomical Society

Volume 3, Issue 10

Message from the President

October provides astronomers unique observing opportunities. Nights are longer and the sun sets relatively early in the evening. For us in the Magic Valley, that means we don't have to stay up until 10:30pm before getting the telescope out. Temperatures remain relatively mild so you can avoid the winter blasts, at least until Halloween were it always seems cold.

Speaking of Halloween, try trick or treating with your telescope this year. Offer the kids (and their accompanying grownups) a treat and a view. You will be surprised at the response you will get. I have very successfully done this the last few years after getting the idea from a magazine. The trick or treaters will get candy from our front door then swing into the driveway where I offer them a look at the moon, a planet, or a bright star. I always had enthusiastic responses people looking at their first telescope view, but it wasn't until I was once the talk of Sawtooth Elementary the following morning that I realized how much people enjoyed it. Seems everyone remembered the house with the tele-

scope pointed at the moon.

This Halloween, we won't have a moon or planets to look at (Jupiter and Saturn are early morning), but don't despair: trick or treaters are wildly enthusiastic about a good star view, period. Just point it at Vega and they will be happy. Be sure to have a stepping stool ready for the little ones, and have Mom or Dad help them up. Good treats include Milky Way or Mars bars. Don't forget to mention the Magic Valley Astronomical Society also!

Our next club meeting will be Saturday October 12th. We will view a video provided to us by Jim Woods of the Herrett Center on ArcheoAstronomy. Phil Hafer will then discuss what we might see at the star party following.

Jay Sneddon, President

MVAS Officers 2002

Jay Sneddon, President
736-2447 jaysneddon@yahoo.com

Phil Hafer, Vice President
734-8719
phafer@pmt.org

Rick Widmer, Secretary/Webmaster
rwidmer@developersdesk.com

John Dean, Treasurer
733-1846
istco@mindspring.com

Write to MVAS P.O. Box
5101, Twin Falls, ID
83303

Yearly membership is
\$20 per person, \$20
per family \$10 per student,
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Kimberly Students Learn about Astronomy

On September 18, 2002, Phil Hafer and Rick Widmer made their way up the to annual Kimberly elementary campout in the south hills. Although the bright gibbous moon was out there were a lot of targets to show the impressive crowd of 6th graders and parents. Most of the viewers, including parents, saw

their first glimpse of the Ring Nebula.

Special thank to Lonnie Tingey with the Kimberly School for coordinating the event. If you know of a group that wants to learn more about the stars let us know and we will schedule a sky viewing event with them.

Look for Perseus and the mysterious star Algol

- **Name:** PERSEUS
- **Translation:** Perseus
- **Abbreviation:** Per
- **Genitive:** Persei
- **Size:** 24
- **Located Between:** [Andromeda](#), Capella ([Auriga](#))
- **RA:** 3 hours
- **Decl:** +45 degrees
- **Season:** Winter
- **Midnight Culmination:** November 7

Skylore

Usually depicted carrying the detached head of the demon-woman Medusa, or Gorgon, who grew snakes for hair. Perseus married Andromeda after saving her from Cetus with the aid of Pegasus (see Andromeda).

Description

Resembles a backward lambda. Located in the Milky Way, between Andromeda/Cassiopeia and Auriga/Taurus. Perseus contains no first-magnitude star, but a pair of beautiful binocular star clusters, known as the Double Cluster. Look for the Perseid meteor shower on August 12. Legend: In the constellation chart above...

- Star colors represent their spectral types (even for dou-

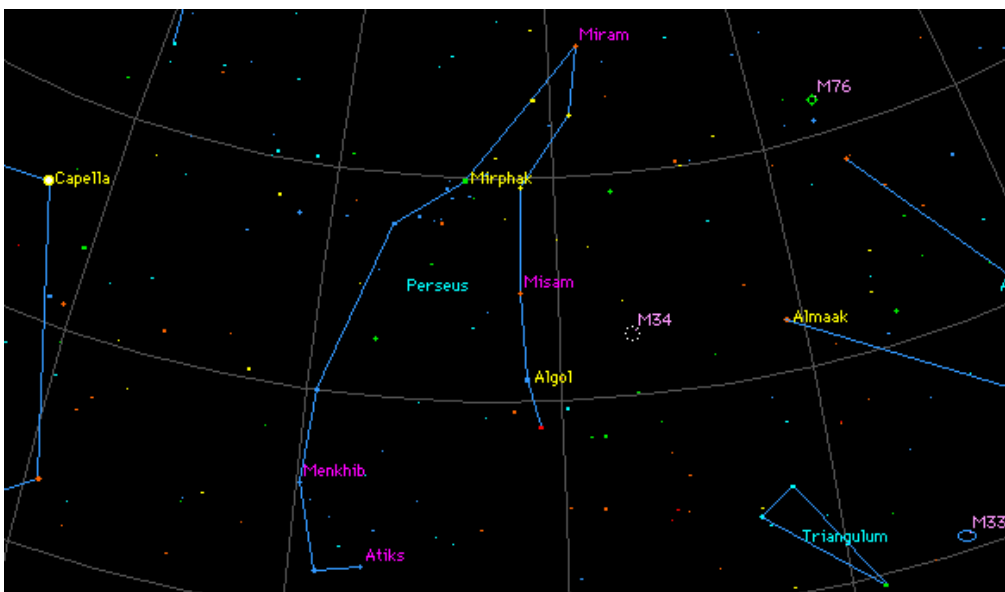
- ble stars).
- [Bright star](#) labels are yellow; significant other stars are labeled in [magenta](#).
- The size of each star indicates its relative [magnitude](#).
- [Constellation names](#) are [light blue](#).
- Grid lines represent either 10 degree intervals of [declination](#) above or below the equator, or intervals of one hour (=15 degrees) of [right ascension](#) (measured along the equator).
- [Messier](#) object numbers are [pink](#).
- [Galaxies](#) are ovals: [blue](#) if spiral, yellow if elliptical, [light blue](#) if irregular.
- Globular clusters are [gold starbursts](#).
- Open clusters are dotted white circles.
- Planetary nebula are [green diamonds](#).
- Bright nebula are [magenta squares](#).
- Dark nebula are [gray rectangles](#).
- [Green ax's](#) are x-ray sources.
- [Purple O's](#) with a diagonal slash through them are quasars.

Special Stars

Mirphak (alpha-Persei). Magnitude: 1.8. Distance: 620 LY.

Algol (beta-Persei), the demon star, the Medus's eye. Distance: 95 LY. Magnitude: 2.1 usually, fading every 2.9 days; in four hours it falls to magnitude 3.4; after 20 minutes it brightens. This exact regularity was discovered by G. Montanari in 1669. In 1782 the astronomer John Goodricke correctly suggested that Algol is a binary, with a faint companion that passes in front of Algol periodically making it wink. Following the changes of Algol makes for an interesting night with binoculars or even the unaided eye; check Sky and Telescope for the times of its dimming.

Thanks to Kerry Magruder for this information





News from NASA

Astronomers have dubbed it “Quaoar” (pronounced kwa-whar) after a Native American god. It lies a

billion kilometers beyond Pluto and moves around the Sun every 288 years in a near-perfect circle. Until recently it was just a curious point of light. That’s all astronomers could see when they discovered it last June using a ground based telescope.

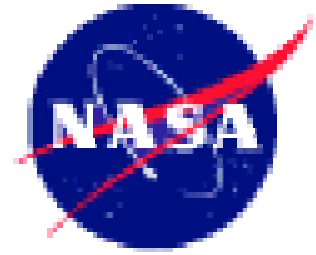
But now it’s a world.

NASA’s Hubble Space Telescope has measured Quaoar and found it to be 1300 km wide. That’s about 400 km wider than the biggest main-belt asteroid (ceres) and more than half the diameter of Pluto itself. Indeed, it’s the largest object in the solar system seen since the discovery of Pluto 72 years ago.

Quaoar is greater in volume than all known asteroids combined. Researchers suspect it’s made mostly of low-density ices mixed with rock, not unlike the makeup of a comet. If so Quaoar’s mass is probably only one-third that of the asteroid belt.

Michael Brown and Chadwick Trujillo of the California Institute of Technology, Pasadena, Calif. Are reporting these findings today at the 34th annual meeting of the Division for Planetary Sci-

ences of the American Astronomical Society in Birmingham, Ala.



Earlier this year, Trujillo and Brown used the Palomar 48’inch telescope to discover Quaoar as an 18.5 magnitude object creeping across the summer constellation Ophiuchus. Although Quaoar was relatively bright (by the feeble standards of such distant objects” its disk was too small for the Palomar telescope to resolve.

Brown followed-up their discovery using the Hubble Space Telescope. Hubble’s new Advanced Camera for Surveys revealed the object’s true angular size of 40 milliarcseconds, corresponding to a diameter of about 800 miles (1300 kilometers). Only Hubble has the sharpness needed to actually resolve the disk of such a distant world.

Like the planet Pluto, Quaoar dwells in the Kuiper Belt, an icy debris field of comet-like bodies extending 5 billion kilometers beyond Neptune’s orbit. Over the past decade more than 500 icy bodies —Kuiper-Belt Objects or “KBOs” for short—have been found there. With a few exceptions all have been significantly smaller than Pluto.

Source: http://science.nasa.gov/headlines/y2002/07oct_newworld.htm



Magic Valley Astronomical Society

Magic Valley Astronomical Society
P.O. Box 5101
Twin Falls, ID 83303
Phone: (208) 734-4383
Email: palo@pmt.org

We're on the Web at
MVAS.net

What is up in the sky in October

Some dread the longer nights of fall and winter, but for us star gazers it is a time to renew our acquaintance with some very important objects. Shortly after nightfall you have brilliant views of M13 the Hercules cluster that has been wowing us for most of the summer. The Andromeda galaxy shines brilliantly just to the north of Pegasus and above the wisps of Andromeda.

Between Perseus and Cassiopeia shines the Perseus double cluster. The Ring Nebular, Vail Nebula and host of deep sky jewels is still visible in Scorpius and Sagittarius.

For those Mercury watchers you will get your best morning view of the year when the elusive planet reaches its greatest western elongation on October 13 and magnitude -0.5 . Saturn begins its retrograde motion October 11 in the constellation Gemini. For the next several months Saturn is well placed in our sky as it approaches its most northerly position and perihelion of its long 29 1/2 year orbit. Its rings are within 1 degree of their maximum tilt. Jupiter shines very brightly in the constellation of Leo and Mars is visible just barely in the

morning sky as it prepares for a truly spectacular opposition in the middle of next year. Still time to view the most distant planets Uranus and Neptune as they appear to move into Sagittarius. Only Pluto and Venus will be hidden by the sun's glare.

The full Hunter moon will appear on October 21 unfortunately glaring out the annual Orionid meteor shower.

For those wishing to see Zodiac Light the first two weeks of October should provide an opportunity. Finally on October 27 the time we sky gazers have been waiting for and most of the rest of the population dreads is the end of Daylight Savings time.

November provides other important events such as another possible Leonid meteor shower peak on November 17 or the 19. Penumbral eclipse of the Moon November 20th.