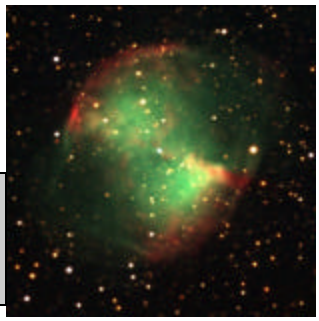
S N A K E R I V E R S K I E S

M a g i c V a l l e y A s t r o n o m i c a l S o c i e t y

MVAS Meeting: Saturday August14, 2004, 7pm Herrett Center, College of Southern Idaho

Join us this Saturday when Gary Rodgers, a long time telescope maker from Jerome, demonstrates the art of telescope mirror grinding. Gary has built many telescopes and can answer any questions on telescope construction and operations.

A public star party follows, starting about 9:45pm.



Right: M27, Dumbell Nebula in Vulpecula. One of the first astro images taken with the Herrett Telescope and the Shotwell CCD Camera on July 10th, 2004. Tracking without guiding correction, R, G, and B frames, three minutes each, processed and stacked with MaximDL. North is up.

Message from the President: Phil Hafer

Circumstances will be nearly ideal for watching the annual Perseid meteor shower at its predicted maximum late on the night of August 11–12. The Perseids are one of the two strongest and most dependable annual meteor showers. Earth's orbit carries us through the densest part of the Perseid meteoroid stream every year around August 11th or 12th. Their rates, however, can vary a lot from year to year. An observer under a dark sky might typically see more than 60 Perseids per hour between midnight and dawn. Since the waning crescent Moon will be only three days from new at the time of shower maximum, this is an opportune year for watching them. How the 2004 shower will actually perform is anybody's guess — but it will probably be better than normal, and there's a chance it could be spectacular.

On the peak night, the Perseids will appear to diverge from a patch of sky between Perseus and Cassiopeia just east of the famous Double Cluster. The meteors' apparent divergence from this radiant point is an effect of perspective; the meteoroids are actually traveling in parallel through space. Meteors appearing near the radiant will display short trails because we see them nearly end on, while those far from the radiant, seen broadside, look much longer. In the early-evening hours the radiant is low in the north-northeast, so the meteors strike the upper atmosphere at a low angle, therefore we see comparatively few of them. As the night advances, the radiant rise higher in the northeast, the meteors arrive more nearly straight down, so we see more of them.

The Perseid meteor shower is caused by Comet Swift-Tuttle, which was discovered in 1862. Comet Swift-Tuttle returned to the inner solar system in 1992. As it swung around the Sun, it added to its particle stream.

The Perseids were given that name because if you trace all the meteor trails backward, they meet within the boundaries of the constellation Perseus the Hero who, in Greek mythology, slew the Gorgon Medusa. The best time to see the Perseids will be Wednesday night, August 11, into the dark morning hours of August 12.

Gary Rogers, from the Jerome Club, will present the program this month. He is one of the local experts on telescope making and will discuss the art of mirror grinding. He will have mirrors in various stages of completion to show along with his presentation. This will be a great program for those in our group who would like to build their own telescope.

Until next month, wishing you clear nights and dark skies.

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MVAS Officers 2004

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If you would like to write an article or otherwise make an entry for the club newsletter, contact Jay Snedden, 736-2447, jaysnedden@yahoo.com.

Yearly membership is $20 per person, $20 per family $10 per student, Sponsor $100

New Product Spotlight: Celestron VistaPix 8x32 3.0MP Binocs

Binocular and Digital Camera Combination

- Integrated bino/camera design
- Gold rubber-coated texture for a comfortable grip
- Images twice as bright as 22mm binoculars
- 32x digital zoom capability through LCD screen.
- Continuous video capability
- Tripod adaptable
- Plug and Play-with mass storage, no drivers are necessary
- Print out images quickly and easily
- 8x zoom
- Two Year Limited Warranty

Product Description

Celestron's next-generation VistaPix gives you the best of both worlds. VistaPix is a high-quality powerful binocular for clear, sharp, bright views of the outdoors - and a versatile digital camera - all in one.

VistaPix images can be stored using its internal mass storage until you're ready to download them to your PC. With VistaPix Photo Manager Software, you can crop, re-size, manipulate color and much more.

VistaPix gives you the tools to add that creative touch. VistaPix Photo Manager Software lets you organize and manipulate your images. Mass storage capability allows you to view your images in Windows® Explorer and copy and paste them directly to your PC's hard drive. There is no need to install drivers for most versions of Windows.

Celestron VistaPix 8x32 LCD Digi-Cam Binocular retails for $250. *Courtesy Orion Telescopes & Binoculars and Amazon.com*

New Product Spotlight: Night Navigator

Find and Identify Constellations, Stars, and Planets Quickly and Easily

Display Orion the Hunter, Pegasus the Winged Horse, and 41 other famous constellations. Not just a collection of beautiful star charts but patented technology that automatically shows you where to look to find the constellation, star, or planet you want to see. Plus, it quickly identifies constellations and bright stars you spot on your own.

Night Navigator uses patented micro-chip technology to find the constellations, plus all first magnitude stars, and even the planets Venus, Mars, Jupiter, and Saturn! Sixteen colorful, illuminated charts label and divide the sky into clear, understandable sections and "connect the dots" to show the classical star "pictures" of heroes and villains. Night Navigator even tells you how high in the sky to look. Bonus book, Navigating the Universe, explains space and includes 16 pages of full-color photos.

Size: 13" x 10" x 1-3/4". Requires four AA and two C batteries (not included). Retail price $79.99.

Courtesty Orion Telescopes and Binoculars

Defending the dark *By Nathan Isaacs Tri City Herald (WA) staff writer*

Bill Combs longs for the day when he can walk outside his Badger Canyon home and be swallowed in darkness with only celestial illumination to guide his way. He can't do that now. A neighbor's new security light is so bright Combs swears he can read a newspaper by its light even when he's about 650 feet away.

That irritation led Combs to investigate the effects of light pollution and seek alternatives. He's now brought what he's learned from such groups as the International Dark Sky organization to the attention of the Benton County commissioners. He hopes the commissioners will soon adopt the county's first outdoor-lighting ordinance. "There are ordinances against making too much noise and so forth, but there is nothing to preclude somebody from lighting up the whole world if he wants," Combs said. "You've removed my choice when your light trespasses into my yard."

Besides preventing annoyance, an outdoor lighting ordinance would save taxpayers money through energy conservation, advocates say. And they contend the new, more efficient lights also would be more friendly to the environment, wildlife and motorists.

Max Benitz Jr., Benton County Commission chairman, said the county will consider an ordinance and may even have a workshop to get more public opinion on the matter. "We are working through the planning department on the pros and cons on addressing his issue," Benitz said.

Combs and Benton County aren't alone in dealing with the issue. The recent growth of the Tri-Cities can be measured not just by the record number of new building permits issued, but also by the increasing yellow glow that fills the night sky.

Rattlesnake Mountain Observatory, near Richland ,WA

Complaints about overbearing lights from car lots, shopping centers and even churches have prompted several Mid-Columbia cities to review their policies. Kennewick's planning commission in April will consider the city's first major revision of its lighting ordinances since 1972. The Kennewick City Council would then adopt or reject any recommendations in May. West Richland and Franklin County have ordinances or rules guiding the outdoor lighting for commercial or industrial purposes, but nothing that applies to homeowners. Pasco doesn't have a specific ordinance governing outdoor lighting, but it has elements regulating outdoor lighting contained throughout its zoning texts.

Bill King, Richland deputy city manager, said there is general interest by the Richland City Council to update lighting restrictions in the city. He said there are some restrictions for neighborhoods, such as Horn Rapids, which is closest to the Rattlesnake Mountain observatory.

Roy Gephart, board member of the Alliance for the Advancement of Science through Astronomy and an avid amateur astronomer, said the push to preserve the night sky also is going on in California, Michigan and Arizona, among other states.

He said the state Department of Transportation and some utility districts also have changed their approaches to street lighting. In Washington, Redmond, Bainbridge Island and Island County recently have made changes to their ordinances. In Oregon, Deschutes County, Troutdale, Oregon City and Sandy also have addressed the issue. Combs included some examples of those ordinances in a package he left with the county commissioners. Gephart said he and others plan to be at Kennewick's meetings on the issue to voice their thoughts. "The outdoor lighting in our community has gotten out of control," he said. "The community is being blasted by high levels of light that is not even needed."

As one of the people working to resurrect the telescope installed at the Rattlesnake observatory, Gephart has seen firsthand the explosion of light pollution in the Tri-Cities. "We have lost nearly half of the southern sky in the last couple of decades," he said.

That impact isn't felt just by some scientists and astronomers, he said. The observatory eventually will be connected to Mid-Columbia classrooms via the Internet. Gephart said looking at the stars is one way to turn students on to the sciences, history and art. He knows of one young man who went from looking at the sky through a telescope in his Tri-City back yard to being a navigator in the Navy, using the same stars to guide his ship across oceans.

Gephart said he and others aren't opposed to night lighting, but they are advocates for smart lighting. He said the key to change at the municipal level, as well as with homeowners, is through education. Most people, he said, don't realize the enormity of the problem. The International Dark Skies association estimates $2 billion is lost across the country each year because of ineffective lighting. The major problem, he said, is that most outdoor lights don't have the shielding to direct the light only toward the ground. Instead, light spills sideways and upward and is wasted.

Gephart said it's important for the Mid-Columbia to put a stop to the bad lighting as soon as possible. Then begins the process of retrofitting existing lighting. He said he believes the area isn't too far beyond help, and that the Mid-Columbia could eventually count the night sky as another natural resource of which to be proud, along with the three rivers and Hanford Reach.

As Combs said: "We're not asking people to change a whole lot."

Magic Valley
Astronomical Society

Magic Valley Astronomical Society
P.O. Box 5101
Twin Falls, ID 83303

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Planet Roundup courtesy skyandtelescope.com

The Sun is once again displaying a large spot group that's visible to the unaided eye through a safe solar filter. Active Region 10649 has rotated back into view and is growing. It's currently south of the center of the Sun's disk (as of August 11th) and will rotate to the west in the coming week.

Mercury and **Mars** are lost in the glow of sunset. (Mars is not only hidden behind the Sun, it's at aphelion, the farthest point from the Sun in its 1.9-year orbit.)

Venus (magnitude –4.3) shines brightly high in the east before and during dawn — a dazzling Morning Star. Look to Venus's right or lower right for Betelgeuse, which marks the top-left corner of Orion. Look well to Venus's lower left for Saturn.

Jupiter (magnitude –1.7) is very low in the west after sunset in early twilight. Binoculars help.

Saturn (magnitude +0.2) is low in the glow of dawn, to the lower left of much brighter Venus. Watch Saturn climb a little higher toward Venus every morning. They'll pass close by each other at the end of the month.

Uranus and **Neptune** (magnitudes 6 and 8, respectively, in Aquarius and Capricornus) are up in the southeast by late evening. **Pluto** (magnitude 14, at the border of Ophiuchus and Serpens Cauda) is high in the south-southwest right after dark.

Club & Star Party Calendar

The Magic Valley Astronomical Society meets the second Saturday of each month at the College of Southern Idaho, Herrett Center at 7pm. Star Party at the Herrett Center follows.

Saturday August 12th MVAS Club Meeting, 7pm Herrett Center. Public Star Party follows.

Saturday September 11th MVAS Club Meeting 7pm Herrett Center.

STAR PARTIES

August 13th & 14th Lava Hot Springs Star Party, held at the airport in Lava Hot Springs, Idaho.

September 10-12th Idaho Star Party, Bruneau Dunes State Park.

September 17-18th Fall Craters of the Moon Party, Craters of the Moon National Monument.