



SNAKE RIVER SKIES

MAGIC VALLEY ASTRONOMICAL SOCIETY

October MVAS Meeting, 7pm Herrett Center: Dick Shotwell speaks on Magic Valley Dark Skies

Dick Shotwell will speak about light pollution in the Magic Valley and ways we can make a difference. Dick has done a great deal of research on how our community can benefit from dark skies and how we can educate the community on effective lighting techniques.

As usual, a public star party follows at the Centennial Observatory. See you there!

Message from the President: Phil Hafer

It's time to nominate officers for next year. So be thinking of those members you want to see lead the club for the next year. Offices are: President, Vice President, Secretary, Treasurer, ALCOR Representative, Newsletter Editor, Education Liaison (Star Party Coordinator), Public Relations, and we need two Officers at Large positions. We will be taking names for inclusion on the ballots, which will go out prior to our November meeting.

Those members who have been trained on the use of the Observatory and telescope are encouraged to schedule time to use the facility. All you have to do is call Chris Anderson and schedule a date and time. He would like to see the members using the facility more than it is being used at the present time. If you have not completed your training, contact Chris so he can schedule a time to get it completed. Also, if you would like to schedule training call Chris to get on his training schedule.

A quiet evening alone under the stars is great therapy for those wanting to escape the craziness of our everyday world. As much as we relish the solitary times, there are times when each of us would prefer some company. Here are two ways to connect with those who share your enthusiasm for the night sky:

1. Go to a star party.

If you can't find a star party, conduct your own. Set

Twin Falls County Fair Winners: Forrest Ray and Tom Gilbertson

Congratulations to MVAS members Forrest Ray and Tom Gilbertson, who won photography awards at the Twin Falls County Fair. Both members were honored for their astrophotography and nighttime settings.

up your telescope and invite your next-door neighbors. If you feel brave, invite the whole neighborhood.

2. Attend and Astronomy Convention.

These are the ultimate social events, astronomically speaking. You can go to one of the large ones, like Stellafane in Vermont or Riverside in California. If you are unable to attend one of these events, you can plan to attend those closer to home, like the Idaho Star Party, or the Oregon Star Party. They can be a wealth of information and you will meet new friends who share your same love for the night sky.



It doesn't matter what kind of activity you do or attend, just get involved and have fun. We can use your help and ideas to help make the MVAS a better club and without your input the organization will just stagnate. So get involved and we can all have a great time learning about the night sky and growing friendships.

The program for our October meeting will be presented by Dick Shotwell and will be on Dark Skies.

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MVAS Officers 2004

- Phil Hafer, President 734-8719
phafer@pmt.org
- Cheri Lowman, Vice President,
736-7293, lowmanch@tfsd.k12.id.us
- Rick Widmer, Secretary/
Webmaster, 539-5162,
rwidmer@developersdesk.com
- Matt Holmquist, Treasurer,
735-5085, mholmquist@
coopernorman.com

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

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

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

Astronomy shines brightly at Bryce Canyon By Brett Prettyman Salt Lake Tribune

BRYCE CANYON NATIONAL PARK -- The night sky provides a means of navigation, a stage for legends and a sense of wonder about what other forms of life might be out there.

At Utah's highest national park, the stars are as important a natural resource as its surreal hoodoos. "We are trying to sell the Bryce Canyon night skies as a unique and extraordinary tourism opportunity," said National Park Service Ranger Kevin Poe, who leads the popular Viewing the Void program. "I love hearing people say they planned their vacation to the desert Southwest around our astronomy programs."

That is exactly what the Barnes family of Sandy did on a recent crisp spring night. After an entertaining and informative program in which their three children starred in an impromptu mythology play, the family headed outside for scenery that is difficult to find anywhere else.

"We were looking on the Internet and found out about the program," said Sue Barnes. "We thought it would add a great educational aspect to the trip and give us something to do at night. Our kids are really into astronomy and this is perfect for them. We already plan on coming back."

Keirsty Barnes, 8, said she wants to be an astronaut one day. Until then, the night sky will have to suffice. "It is really amazing to see the planets and other things out there," she said after spying Saturn and its rings through a telescope in the visitor's center parking lot. "Some day I might see another galaxy. In the meantime I get to see stuff from Earth." And there are few places as good as Bryce Canyon "to see stuff from Earth."

The combination of high elevation, an arid environment and a lack of light pollution makes this one of the best spots on this planet to view other planets and stars.

"It is sort of like laying on the bottom of the shallow end of the swimming pool. It is easy to recognize people looking down at you," Poe said. "Other places it is like being in the 12-foot end of the pool where it is blurry

and hard to recognize your family and friends wondering why you are at the bottom of the pool. There is less atmosphere to look through here."

Bryce Canyon also has a weather pattern conducive to clear night skies. Most storms in the national park happen in the afternoon and



Bryce Canyon National Monument volunteer Ron Warner positions his donated telescope toward Saturn before one of the many star parties held in the visitors center parking lot. (Francisco Kjolseth/The Salt Lake Tribune)

are gone by dusk. Poe said the parks averages 300 clear nights each year.

Those factors lead to a rating as high as 7.4 on the stargazing magnitude scale.

"We average about 7.0. That's world class stargazing," Poe said.

For comparison, a small town with a few night lights, such as nearby Tropic, rates about 5.0 on the scale. Big cities are much lower. Salt Lake City is probably about a 4.0, according to Poe. The top of the dormant Mauna Kea volcano in Hawaii has one of the highest ratings at 8.0.

Bryce Canyon is one of the best places to stargaze in the National Park System, but other Utah parks, such as Capitol Reef, can be just as good at times.

Poe has been hosting the Viewing the Void program for two years now, but Patrick Wiggins has been sharing the night sky at Bryce Canyon with visitors for 20 years.

"People get down there and they are astounded because there are so many stars," said Wiggins, who leads the Stars in the Park program and volunteers as a NASA Solar System Ambassador to Utah. "Bryce Canyon is a jewel. It's such a treat to be able to see as much as you can there."

The night sky programs are scheduled for the darkest nights of the month to provide the best viewing opportunities, but visitors can take part in the popular Moon Light Hikes when the Viewing the Void and Stars in the Park programs are not being held. All are part of the park's Night Sky Program.

While visitors on this particular night rattle off their favorite stars, planets, constellations and galaxies as other people would list favorite sports heroes, 5-year-old Kyle Barnes appreciates it all.

"I don't really have a favorite part," he says. "Everything about it is good. I just like being able to see so many."



Boasting 300 clear nights a year, Bryce Canyon in Utah offers spectacular dark skies. (Francisco Kjolseth/The Salt Lake Tribune)

Taking Star Trail Exposures By Francisco Kjolseth The Salt Lake Tribune

BRYCE CANYON NATIONAL PARK -- Known as one of the darkest places in the country, Bryce Canyon National Park in southern Utah is a spectacular place to view the night sky.

This photo was captured on a film exposure of six hours during a recent new moon cycle.

The stars form long trails as the Earth rotates on its axis. The formation along the Fairyland Loop in Bryce Canyon was chosen for its south-facing orientation.

Using a Hasselblad SWC medium format camera on a tripod at an aperture of 4.5, I opened the shutter once the sky was completely dark. For the first few minutes, I exposed the rocks in the foreground with a high-powered flashlight with an orange gel, making sure not to shine the light in the direction of the camera. From then on it was a waiting game, with me hoping the sky would stay clear all night and that wind would not shake the camera.

The final and most important tool for a successful star trail exposure is an alarm clock. Without an alarm clock, it's easy to wake up to a sunny sky, overexposed film and a missed opportunity.



Light pollution Casts a Shadow over Astral Umbrae By Brett Prettyman The Salt Lake Tribune

BRYCE CANYON NATIONAL PARK -- Most people have never seen their Venutian shadow. Even those who know that their bodies can cast a shadow from the light of Venus have a hard time knowing where to look for it.

"People can have a Venus shadow, a Jupiter shadow and, when the Milky Way is high in the sky in the summer, you can see a shadow made by your own galaxy," said Chad Moore, a member of the National Park Service's Night Sky Team. "Unfortunately, there are not a lot of night skies around the country where you can see these shadows."

Bryce Canyon ranks as one of the best night skies in all of the National Park system, but officials at the southern Utah park are concerned things could change quickly if people continue to waste

light by pointing it into the night. Increasing light from cities in southern Utah (St. George and Cedar City) and northern Arizona (Page) is reaching Bryce Canyon.

"We are trying to find out what kind of night sky we have in the parks and how much we have lost," Moore said. "We are working to identify where light pollution is coming from and share that with the public. There are all kinds of pollution issues, but we feel that light pollution is the easiest to address and remedy."

Light ordinances are becoming more common in communities across the country and awareness has led to the reworking of light sources at such landmarks as Old Faithful in Yellowstone National Park. But Americans everywhere can help by limiting and controlling lights on their property.

Observing Highlights: Lunar Eclipse

(courtesy Sky and Telescope)

On October 27, 2004, the full Moon will undergo a **deep total eclipse** lasting for 1 hour 22 minutes, when it will be high in the eastern sky after dark but while most people are still awake and about.

The only slightly problematic area will be near the West Coast of North America, where the partial phase of the eclipse will begin just a few minutes after sunset and moonrise. But if you have an open view low to the east, even this situation will only add to the drama. As twilight fades, westerners will see the shadow-bitten Moon coming into stark view low above the landscape, and by the time totality begins, the sky will be getting quite dark and the Moon will be fairly high.

4 Vesta and Uranus are visible through binoculars through the months of October and November. You can find them in Aquarius.





Magic Valley
Astronomical Society

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

Planet Roundup courtesy skyandtelescope.com

Mercury, Mars, and Jupiter are hidden deep in the glow of dawn. However, look for Jupiter to start emerging from the Sun later in the month.

Venus (magnitude -4.1 , in Leo) is the bright "Morning Star" shining in the east before and during dawn. On November 5th, Venus and Jupiter will be within $2/3$ of a degree from each other.

Saturn (magnitude $+0.2$, in Gemini) rises around 1 a.m. daylight saving time. By the first light of dawn it's very high in the southeast, far to Venus's upper right. Saturn lies between Procyon (which shines to its lower right) and Pollux and Castor (closer to Saturn's upper left).

Uranus and Neptune (magnitudes 6 and 8, respectively, in Aquarius and Capricornus) are well placed in the south during evening.

The minor planet **4 Vesta** can be found with binoculars in eastern Aquarius on October and November evenings. The minor planet 4 Vesta loops through the dim "water streams" pouring from Aquarius's bucket. It dims from magnitude 6.4 on October 1st to 7.1 on November 1st and 7.6 on December 1st. See chart on page 3.

Denebola
10°
Dawn, Nov 5
45 minutes before sunrise

γ Vir • Jupiter
Venus
Only $2/3^\circ$ apart!

Mars • Spica

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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 October 9th, Club Meeting, 7pm Rick Allen Meeting Hall at the Herrett Center.

Saturday November 13th, November Club Meeting.