

# **Snake River Skies**

### January 2005 Volume 6 Issue 1

### Club Officers

- Cheri Lowman, President, 736-7293
- Ken Thomason, Vice President 324-4532 ktst@pmt.org
- Rick Widmer, Secretary Webmaster 539-5162 rwidmer@developersdesk .com
- Tom Gilbertson, Newsletter Editor 734-04383 palo@pmt.org

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

Yearly membership is \$20 per person or family and \$10 per student. Sponsor memberships are \$100.

# Support these Sponsors

Congratulations to those who won a beavy of prizes provided by these important sponsors:

Imagination Station

Herrett Center

Sportsman's Warehouse

Outback Steakhouse

Image Arts Johnny Carinos

### Chilis

Tomato's

**Barnes & Noble** 

First Federal Savings Bank

Magic Valley Astronomical Society

Inkleys

Hafer Construction

Cheri Lowman's Kitchen

A special thanks for Chris Anderson who did a very good job designing the "Who Wants to be a Millionaire contest for our December fun night. We had some very knowledgeable contestants, many of whom would have been in the big money if they would have made the network version of the show.

Thanks also to Phil Hafer and his wife Kristie for providing

### Message from our New MVAS President Cheryl Lowman

Happy New Year Everyone! I hope everyone's Holiday was warm and fulfilling!

This month's guest speakers will be Tom Gilbertson and Ken Thomason. They will give an educational discussion about telescopes and demonstrate how to use those new telescopes we all got for Christmas! If you know someone who got a telescope for Christmas, invite them! We will also try to raffle off some eye pieces and books that were left from last month's fundraising meeting, so bring your Christmas money and buy some tickets!

With any luck, the weather will be a little more cooperative this year! Hope to see all of you at the meeting!

Your 2005 MVAS President,

# Telescope Trivia

As a follow-up to our exciting Chris Anderson Version of "Let's be a Millionaire" this newsletter will be dedicated to those who study Telescope Trivia. Answers are on the back page.

- 1. Man has been looking at the heavens for thousands of years with his 1 power eyes. The telescope is a relatively recent invention and is less than 4 hundred years old. Who invented the telescope some say in the year 1608?
- 2. Incredible images have been taken by the Hubble space telescope. Although it is by no means the largest telescope in use, its position above the earth's atmosphere make its images incredibly clear. What is the full name of the famous astronomer that the Hubble telescope is named for and what was his law?
- 3. There was early trouble with the optics of the Hubble telescope, but after a very successful repair mission this telescope has become earth's most popular and well known telescope. When was the Hubble Telescope deployed and which Shuttle was it deployed from?
- 4. Nomenclature is important in understanding how telescopes work. One term used is "Prime Optic." What is the Prime Optic of a refracting telescope?
- 5. What is the Prime Optic of a Reflector?

- 6. Galileo was not the one who invented the telescope, but he was with being the first to understand its importance in studying astronomical objects. Among his many discoveries were the four Galilean moons of Jupiter, the apparent seas and mountains of the moon, the phases of Venus and the particularly odd shape of Saturn. In one observation he noted Saturn appeared to have ears. What was the estimated aperture of Galileo's first refractor?
- 7. Chromatic aberration was and still is a limitation in designing refracting telescopes. Sir Isaac Newton is famous for designing a telescope that did not suffer from the chromatic aberration. By using a curved mirror instead of a glass lense for the objective. What was the estimated aperture of Newton's first reflector?
- 8. With the exception of our sun, our present technology in designing telescopes does not allow stars to be resolved as perfect points of light. Instead the best we can do is a the light of a star as a blob. Granted the better the telescope the smaller the blob, but a blob of light nevertheless. This is partly because of our atmosphere, but also because light consists of waves instead of perfect straight lines. Who was the famous astronomer who first discovered this fact?
- 9. A nineteenth century Astronomer found experimentally that the closest a pair of 6th magnitude yellow stars can be to each other and still be dis-

tinguishable as two points can be estimated by dividing 4.56 by the telescope's aperture. Who discovered this limit?

- 10. One way to help control chromatic aberration in refractors is to make the instrument longer. What is the longest refractor of record?
- 11. Another more practical way of controlling chromatic aberration is by combining lenses of different types of glass. The reason this works is that different glasses bend light at different angles. Who was the first to develop the two element achromatic lense?
- 12. A very famous telescope maker was

the Alvan Clark and Sons. They are credited with making the widest aperture refractor in the world with 40 inches of aperture. What is the name of the observatory and where is it located?

13. Newton designed a reflecting telescope that has become a very popular design today, but he was not the first to design a reflecting telescope. Who was the first?

To learn more about the fascinating invention the Telescope come to this Saturday's telescope workshop 7:00 pm at the Herrett Center

What's Up in the Sky January 2005		
January is typically a very cloudy month for sky watchers in Idaho. However, if it is clear out it is in- credibly clear. No dust or smoke in the air this time of year, and the air is cold and usually still.	looked at one of the best views of the Great Orion Nebula with its impressive patern of stars called the trape- zium. The rings of Saturn in nearby constellation Gem- ini were incredibly clear.	<ul> <li>erably brighter than Spica.</li> <li>About an hour be- fore sunrise look for Venus Mercury and Mars. Mercury drops from view at midmonth.</li> <li>Conspicuous con- stellations include Orion, Taurus, be sure to view M1 the Crab Nebula, and Auriga with its jewel like open clusters M38, M36, and M 37</li> <li>The Pleades is eas- ily seen as an attrac-</li> </ul>
My first viewing of the year was in the wee hours of Janu- ary 1st and the great hunter, Orion was shining brightly in the southern sky. I got out one of my telescopes and	This is the best month to view Sat- urn (if it is not hid- den by clouds) as it is in opposition January 13th. Jupi- ter comes up later in Virgo near the star Spica, but is easily found be- cause it is consid-	

A Publication of the Magic Valley Astronomical Society

> MVAS P.O. Box 5101 Twin Falls, ID 83303

### Answers to Telescope Trivia

- 1. German-Dutch lens grinder and spectacle maker Hans Lippershey is generally given credit, although Zacharias Janssen and Jacop Metius also developed telescopes.
- 2. Edwin Powell Hubble (1889 to 1953) Hubble's law relates the velocity of recession of a galaxy to its distance. In short the farther a galaxy is away from us the greater its velocity away from us. Edwin Hubble helped convince the Scientific community

that the universe is expanding.

- 3. April 25, 1990 from the Shuttle Discovery.
- 4. The Objective (the end of the scope you point at the object you wish to view).
- 5. The Primary Mirror (located at the opposite end of the telescope you point at the object you wish to view).
- 6. 1.5 inches
- 7. 1.33 inches
- 8. Sir George Airy

- 9. English Astronomer William Dawes and this is known as Dawes limit.
- 10. The 150 foot long refractor built by Johannes Hevelius of Denmark.
- 11. Chester Hall in the year 1733. The outer lense is usually of crown glass and the inner one of flint glass.
- 12. The Yerkes Observatory in Williams Bay, Wisconsin.
- 13. James Gregory in