



# Snake River Skies

*A monthly publication of The Magic Valley Astronomical Society, member Astronomical League*

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Visit us at <http://www.mvas.net>

## MVAS Next meeting: Wallace Blacker: Making Astronomy Fun

Join us for our special guest, Wallace Blacker, Astronomy teacher extraordinaire. His topic will be, "Making Astronomy Fun".

We meet 7pm Saturday November 11th at the College of Southern Idaho in the Herrett Center Classroom. Star party follows at 8:30pm.

## DECEMBER 9th MVAS Fundraising Raffle: Lots of prizes, fun

Join us in our regular December meeting for our annual fundraising raffle, with prizes and games for everyone. Each member of the MVAS gets a free raffle ticket with additional tickets available for \$1. Last year's sponsors included Target, the Imagination Station, the Herrett Center Museum, and many many more.

cluded, can win free raffle tickets by participating in some of the games. Lots of astronomy fun and learning for all ages.

If you have a prize to donate, please contact Jay Sneddon, 736-2447. We could always use baked goods and other such donations to raffle off. All proceeds go to the Magic Valley Astronomical Society.

Everyone attending the meeting, public in-

### Club Officers:

Tom Gilbertson, President,  
palo@pmt.org  
(208) 734-4383

Jay Hartwell, Vice President,  
jhartwel@micron.net (208)734-6410

Jay Sneddon, Secretary jaysneddon@yahoo.com (208) 736-2447

Forest Ray, Treasurer, publicity 736-8678

Write to MVAS, P.O. Box 5101, Twin Falls, ID 83303. [Http://www.mvas.net](http://www.mvas.net)

Yearly membership is \$10 per person, \$15 per family, \$6 per student. Benefits include magazine discounts to Sky & Telescope and Astronomy, club activities, and Astronomical League benefits.

## From the President—Tom Gilbertson

Thanks to Chris Anderson for giving a very informative and entertaining program on "Cosmic Yardsticks" at our last meeting. This was one of many quality programs we were able to get this year.

In fact we have been blessed with a number of fun club events including an exciting Messier Marathon, a field trip to the Observatory at Bruneau Sand Dunes, two Craters of the Moon Star parties, the Boise Club's Idaho Star Party, move to the Herrett Center, and other fun times. These events do not happen without a good deal of help and planning.

As the year ends join me in thanking a dedicated group of individuals who help make this club and the events possible. I'll give you a brief run down, but by no means will this be a complete list of thanks we owe.

Jay Hartwell, Vice President, has been active in setting up forms to make achieving observing awards easier, and in formu-

lating the new By-Laws and Charter of the Club. Jay Sneddon, Secretary, has been invaluable in getting the newsletter together, working on the Internet site, and coordinating with the Idaho Falls Club the Craters Star Parties. Forrest Ray, treasurer/publicity has been active in publicity and keeping track of revenue and expenses. Ken Thomason, Past President, for his many years of experience and good advice.

Also a special thanks to new member Rick Widmer for creating a new Internet site, new domain name, and for hosting the site. Thanks also to Jim Woods, Chris Anderson, Rick Greenawald, and the Herrett Center staff for supporting our club and making us welcome at our new meeting site. There are a number of other individuals who bring telescopes, attend meetings, and contribute to the welfare of the club. Thanks to all of you.

At our next meeting on November 11, we will have Wallace Blacker, the instructor of Astronomy at CSI.

I had the pleasure of taking his class in the spring

## Planet lovers campaign to save Pluto Express

The largest space interest group in the world wants Congress to ensure funding for a mission to Pluto that it fears NASA might call off for budgetary reasons.

The Pluto-Kuiper Express is currently slated to become the first spacecraft to visit the mysterious world, the smallest and usually farthest planet-like body from the sun

The Planetary Society on Friday urged its 100,000 members to contact elected leaders in Congress, following reports that NASA and White House budget planners were considering killing the mission.

"There does seem to be enough smoke to convince us there is fire," said society director Louis Friedman of the possible cancellation.

Michael Drake, chair of NASA's solar system exploration subcommittee, shared Friedman's concern about the Pluto-Kuiper Express.

### 'Danger of being cancelled'

"It is indeed in danger of being cancelled," said Drake, a planetary scientist at the University of Arizona in Tucson.

NASA managers are considering more factors than just the budget in deciding the fate of the mission, Drake said. The intended launch vehicle will likely not be ready in time for the planned launch in 2004, the last opportunity for a decade to use the gravity of Jupiter to slingshot the probe to Pluto.

The spacecraft's proposed plutonium power supply could cost more than expected as well, Drake said. "All of this is leading to a serious re-thinking of what we can achieve with the current budget," he said.

### Mars shadow darkens Pluto

The planet nearest Earth could indirectly affect the expedition to Pluto. The loss of two Mars probes in 1999 prompted NASA to restructure its red planet

exploration program, leading to additional costs, Drake said.

Also, NASA announced Thursday it was considering sending two rovers instead of one to Mars in 2003. The additional mobile probe could almost double the price tag of a single rover mission.

"I don't think there's a direct tie but there may be an indirect tie in the political sense," said Friedman of the Mars and Pluto missions. "While (NASA) is seeking funding for two rovers, it might not be able to fully fund other items."

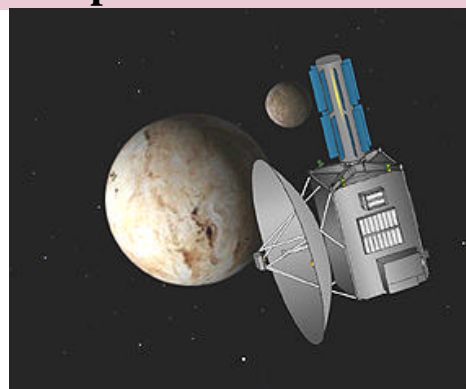
Pluto is a mystery to scientists. Speculation abounds as to whether it is a planet in its own right, part a double planet with its companion Charon, a large asteroid or a burnt-out comet. The cold and dark Pluto system could provide clues about planetary evolution and the origin of Earth's atmosphere, NASA said.

After a trip of eight to 12 years, the Pluto-Kuiper Express would study and map Pluto and Charon, then fly by the Kuiper Disc, a recently discovered ring of "ice dwarfs" or minor planets beyond the major planets.

A NASA spokesman said the agency is dealing with cost overruns with recent projects, but downplayed worries over the fate of the Pluto mission, which has an estimated cost greater than \$350 million.

"We are currently in the cycle of the budget discussions where we are looking at all the options for the next fiscal year," Don Savage said. "Singling out Pluto-K is unwarranted. I can't see why any particular mission is considered being at particular risk."

— *from www.cnn.com*



## Cassini Snaps First Photo of Jupiter *by Melanie Melton*

While on its way to Saturn, the Cassini spacecraft took the first of what will be a series of images of the gas giant planet Jupiter. The image shows a remarkable degree of detail, considering the spacecraft was 84 million kilometers from the planet at the time.

The image shown here, courtesy of NASA/JPL and the University of Arizona, was taken October 1, 2000, using a blue filter on the Imaging Science Narrow Angle Camera. The smallest features that can be seen are about 500 kilometers across.



Cassini has been on the road for three years already (launched on October 15, 1997) and has another four years to go before it reaches its destination. This flyby of Jupiter gives scientists on

Earth an opportunity to "stretch the legs" of various instruments on board the spacecraft.

"This has been our first opportunity to exercise the Cassini flight and ground systems in a mode very similar to how we expect to operate at Saturn and I'm extremely pleased with how it is working," said Bob Mitchell, Cassini Program Manager at NASA's Jet Propulsion Laboratory, Pasadena, CA.

As Cassini flies by Jupiter in the next few weeks, it will take a series of color and black & white images along with other readings. The data will be compared with readings taken by the Galileo spacecraft currently in orbit around Jupiter.

Cassini is scheduled to arrive at Saturn on July 1, 2004 after flying by Phoebe, one of Saturn's most distant moons.

— from [www.planetary.org](http://www.planetary.org)

## What is Cassini?

The Cassini spacecraft, including the orbiter and the Huygens probe, is one of the largest, heaviest, and most complex interplanetary spacecraft ever built. The orbiter alone weighs 2,150 kilograms (4,750 pounds). When the 350-kilogram Huygens probe, launch vehicle adapter, and 3,132 kilograms (6,905 pounds) of propellants were loaded, the spacecraft weighed about 5,600 kilograms (12,346 pounds) at launch. Only the two Phobos spacecraft sent to Mars by the former Soviet Union were heavier.

The Cassini spacecraft stood more than 6.8 meters (22.3 feet) high and was more than 4 meters (13.1 feet) wide. The complexity of the spacecraft is necessitated both by its trajectory or flight path to Saturn and by the ambitious program of scientific observations to be undertaken once the spacecraft reaches its destination. It will function with 1,630 interconnect circuits, 22,000 wire connections, and over 14 kilometers (8.7 miles) of cabling.

You might well ask "why is the spacecraft being built in the first place?" A space mission such as



Cassini begins with a set of science goals that the scientific community, and much of society wants to achieve. In this case, we are hoping to obtain a better understanding of the planet **Saturn**, its famous rings, its magnetosphere, its principal moon **Titan**, and its other moons or "icy satellites." There are also many other benefits, including technology spin-offs, international cooperation, and educational motivation for people of all ages.



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P.O. Box 5101  
Twin Falls, ID 83303  
<http://members.tripod.com/mvas>

## From the President

2000 semester and I was very impressed by his knowledge and especially his enthusiasm for the subject of Astronomy. He has a keen interest in Astronomy and through his class he has added a great deal to the furthering the knowledge of Astronomy in our community. He will talk on "Making Astronomy Fun," a description of some of the activities and techniques he uses to teach Astronomy. You will not want to miss this program.

Tom Gilbertson, President

## MVAS CLUB CALENDAR

### NEXT CLUB MEETING:

**Saturday November 11** 7PM at College of Southern Idaho, Herrett Center classroom. Wallace Blacker presents, "Making Astronomy Fun". Herrett Center Star Party afterwards at sunset.

Saturday December 9th 7PM at the College of Southern Idaho Herrett Center Classroom. Club fundraiser. Raffle, games and officer elections. All club members get a free raffle ticket. Public is welcome and encouraged to participate.

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

Visit us at <http://www.mvas.net>

*Please submit web site materials to [mvas@mvas.net](mailto:mvas@mvas.net) We welcome photos and other materials to post.*