

Martian Chronicles

Volume 24 Issue 12

December, 2005



**Deep Space
Mysteries 2005
Calendar on Sale.**

Price \$6.00

Membership Dues

Dues are \$15.00 for single membership and \$20.00 for family membership.

See Mildred Simpson, Treasure for both calendar and membership dues.

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Up Coming Club Events

December 2005

9th: M.A.R.S Club Meeting

Program: Christmas Party

10th: MOSI SkyWatch

January 2006

2nd Library Talk

Progarm: Saturn, its Moons and Rings

8th M.A.R.S. Club meeting

Program: TBA



Astronomy Day 2006

Saturday, May, 6

2005 Christmas Party

It has always been a tradition to have the annual Christmas Party. The club will be providing the paper goods and the ice. You need to bring something good to eat or drink. Lets start a new tradition, bring an unwrap present for a child to be donated to the needy.

Night Sky Network

"Astronomy clubs bringing the wonders of the universe to the public"



Nominations for the 2006 Club Officers

President—Dennis Farr	Web Master— Dennis Farr
Vice President—	Education Outreach
Treasurer—Frances Ferguson	Coordinator—
Secretary—Carolyn Oivero	Astronomy Day Coordinator—
Editor— Rocky Roderbach	Librarian—

From the Keeper of the Frog Scope

By Frances Ferguson, President

Is it the end of 2005 already? I hope to see you and your family at the last meeting.

As you can see from the list of nomination of Officers above we still have several of the offices vacant. If you are willing to serve in any position please e-mail

me (faerguson@sisna.com).

I have enjoyed serving as President and look forward to serving the club in a different position. I know each of you are capable of filling any of the offices you only need a little push. So, here's your push. After all you never know

what you can do before you try.

James and Joyce Zachary have worked hard in getting a location for a weekend star party. Mark you calendars for March 3,4 and 5. More information will be coming soon. We will need help in organizing the weekend.

What's Up in Astronomy Today ?

Title: Saturn, its Moons and Rings

Friday, January 6, 2006, 7:00 PM to 8:00 PM in the Saunders Planetarium at MOSI in Tampa
Description: With the opposition of Saturn on January 27, this a perfect time to brush up on the Saturn system, including its largest moon Titan, and review the latest news from the NASA Cassini mission.

Orange Blossom Special Star Party

The St. Petersburg Astronomy Club's annual "Orange Blossom Special Star Party" will take place at Alafia River State Park from February 22 to the 26th. Registration forms can be downloaded off the Club's web site www.telescopelab.com.



Voices from the Cacophony

By Trudy E. Bell and Dr. Tony Phillips

Around 2015, NASA and the European Space Agency plan to launch one of the biggest and most exacting space experiments ever flown: LISA, the Laser Interferometer Space Antenna.

LISA will consist of three spacecraft flying in a triangular formation behind Earth. Each spacecraft will beam a laser at the other two, continuously measuring their mutual separation. The spacecraft will be a mind-boggling 5 million kilometers apart (12 times the Earth-Moon distance) yet they will monitor their mutual separation to one *billionth* of a centimeter, smaller than an atom's diameter.

LISA's mission is to detect gravitational waves—ripples in space-time caused by the Universe's most violent events: galaxies colliding with other galaxies, supermassive black holes gobbling each other, and even echoes still ricocheting from the Big Bang that created the Universe. By studying the shape, frequency, and timing of gravitational waves, astronomers believe they can learn what's happening deep inside these acts of celestial violence.

The problem is, no one has ever directly detected gravitational waves: they're still a theoretical prediction. So no one truly knows what they "sound" like.

Furthermore, theorists expect the Universe to be booming with thousands of sources of gravitational waves. Unlike a regular telescope that can point to one part of the sky at a time, LISA receives gravitational waves from many directions at once. It's a cacophony. Astronomers must figure how to distinguish one signal from another. An outburst is detected! Was it caused by two neutron stars colliding *over here* or a pair of supermassive black holes tearing each other apart in colliding galaxies *over there*?

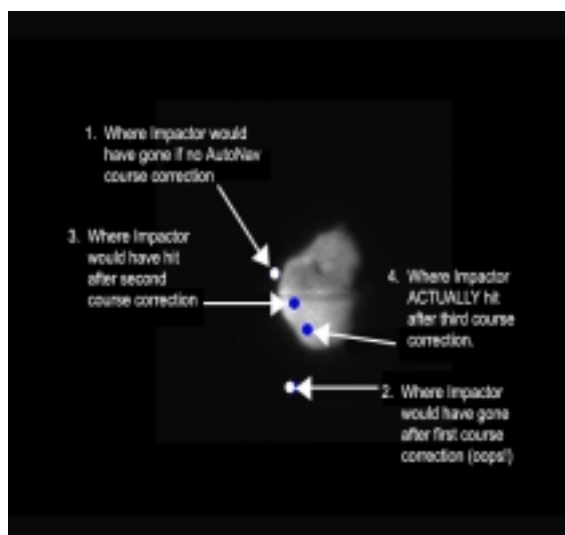
"It's a profound data-analysis problem that ground-based astronomers don't encounter," says E. Sterl Phinney, professor of theoretical physics at the California Institute of Technology in Pasadena.

Profound, but not hopeless: "We have lots of good ideas and plans that work—in theory," he says. "The goal now is to prove that they actually work under real conditions, and to make sure we haven't forgotten something."

To that end, theorists and instrument-designers have been spending time together brainstorming, testing ideas, scrutinizing plans, figuring out how they'll pluck individual voices from the cacophony. And they're making progress on computer codes to do the job.

Says Bonny Schumaker, a member of the LISA team at the Jet Propulsion Laboratory: "It's a challenge more than a problem, and in fact, when overcome, a gift of information from the universe."

For more info about LISA, see lisa.nasa.gov. Kids can learn about black holes and play the new "Black Hole Rescue!" game on The Space Place Web site at <http://spaceplace.nasa.gov/en/kids/blackhole/>.

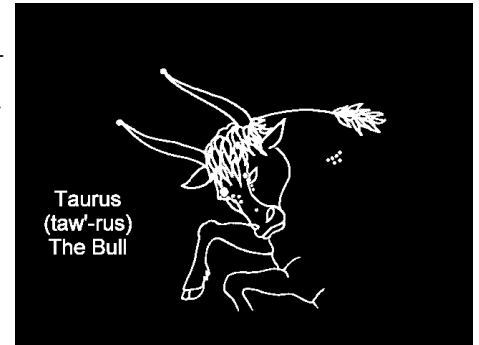


Comet Tempel 1, as seen by the Deep Impact impactor's camera. Three last-minute AutoNav-controlled impact correction maneuvers enabled the Impactor to hit the bulls-eye.

CONSTELLATION OF THE MONTH

by Craig MacDougal

Now that the weather is starting to act more like winter (for Florida), and the calendar says it's winter, we should start looking for some 'winter' constellations. This is a favorite constellation for quite a number of people for a variety of reasons: It contains a brighter star with a distinctive color, it contains two distinctive asterisms (star patterns that aren't official constellations), and it contains some wonderful visual sights, regardless of whether you observe with a 17" monster scope, or just your own eyeballs. Go out at 9:00PM and face the east. A bit more than halfway up the sky you should see a reddish star. This is the brightest star in the constellation **TAURUS** (TAW-rus) The Bull. It represents the blood-shot eye of the bull. **ALDEBARAN** is at one end of a "V" made up of five, or six stars. I say five or six because one of the stars is a nice naked eye double star. The "V" points toward the right and up at this time of year and night. This "V" represents the face, or head of the bull. Extend a line off of each end of the "V", and in about a hand width you'll come across the stars that represent the tips of the bull's horns. But let's get back to the head of the bull. All the stars you see in this "V" asterism (except Aldebaran) are part of the same star cluster. Most star clusters we see are just fuzzy patches in binoculars, and we need telescopes to show you their wonder, but not this one. Why? Because the **HYADES** (HI-a-deez), as this cluster is called, is in our galactic back yard. In fact, at 150 light years, you could say that it's at the bottom of the back steps where you could trip over it if you're not paying attention (galactically speaking, of course). Even though it looks at home in the Hyades, Aldebaran is less than 70 light years away (on the second step). Now that we've learned all about the "V" shape asterism of Hyades, let's move on to the other asterism in Taurus. I've saved this one for last because it is the one asterism that almost everybody has noticed at least once. Above the Hyades (west) you will notice a tight cluster of stars that form a tiny dipper. No, this is not THE Little Dipper. But another star cluster called the **PLEIADES** (Plee-a-deez). It's also called the seven Sisters" because you can see seven stars if it's good and dark and you have good eyes (or at least good glasses, or contacts). Any optical aid will show a mess more stars to this cluster. "But why is this cluster so compact, and the Hyades so spread out?" I hear you ask. Well, two reasons: First, the Pleiades is a bit younger than the Hyades, so the effect of the rest of our galaxy haven't had much chance to spread the stars out. Second, the Pleiades are about 3 times farther away. At 400 light-years it's still in our back yard, but about halfway to the back fence, right beside the swing-set.



Minuets of the November Meeting

Frances Ferguson presented the Program "Through the Eyes of Hubble". It consisted of a few of the beautiful pictures taken by the Hubble Space Telescope of the last 15 years.

Meeting was called to order. Mildred Simpson gave the Treasure's Report. The Club has \$ 897.73 in the working fund.

Old business

James Zachary suggested

the star party be scheduled for March 3, 4 and 5. Which was agreed by the members.

MOSI Sky Watch

MOSI SkyWatch will be held on Saturday and everyone is encouraged to attend.

What's Up in Astronomy Today's schedule was provided by Liz Mueller.

Nominations for officers for the 2006 year were taken.

New Business

Frances Ferguson mentioned the Orange Blossom Special and said she would provide information in the next newsletter.

Every one was encouraged to attend the Christmas Party. The club will provide the paper goods and ice. Anyone coming should bring something good to eat or drink.

Meeting adjourned 9:00 PM .

NEWSLETTER OF THE MUSEUM ASTRONOMY
RESOURCE SOCIETY ASTRONOMY CLUB

M. A. R. S. Astronomy Club
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**M.A.R.S Club's
Website
www.marsastro.org**

Newsletter of the Museum Astronomical Resource Society

Martian Chronicles is published monthly by the Museum Astronomical Resource Society (also known as M.A.R.S. Astronomy Club), to provide club news and other items of interest to its member. MARS is sponsored by MOSI Tampa Florida. Annual club membership dues are \$15.00 single and \$20.00 for families. Dues can be paid to any club officer at a meeting or event or mailed to the Club Membership/Renewal Address listed below. Newsletters are available to nonmembers by requesting a complimentary issue. Please send all inquiries, comments and newsletter contributions to the address below. The deadline for submitted contributions is the 25th of the month prior to the next issue. Contribution may be delayed in publication due to available space.

*Membership/Renewal
Make checks payable to: Mildred Simpson, (Club Treasurer)
M.A.R.S.
C/O Mildred Simpson
1522 W. River Lane
Tampa Florida*

2005 M.A.R.S. Club Officers

President—Frances Ferguson, 813-238-8299

faferguson@sisna.com

Vice President—

Treasurer—Mildred Simpson, 813-238-8299

mildreds@sisna.com

Secretary—Katherine Holland, 813-988-6689

Newsletter— Frances Ferguson

Web Master— Dennis Farr

Education Outreach Coordinator—

Jimmy Thomas, 813-888-7187

Astronomy Day Coordinator— Your name could be here

Librarian—Douglas Ordetx

MOSI Contact—813-987-633,

*Membership
Club dues run from September to
August of each year. Dues will be
taken at the September Meeting.
\$15 single \$20 family*

December 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 <i>New Moon</i>	2	3
4	5	6	7	8 <i>1st Quarter Moon</i>	9 <i>MARS Meeting</i>	10
11	12	13	14	15 <i>Full Moon</i>	16	17
18	19	20	21	22	23 <i>Last Quarter Moon</i>	24
25 <i>MERRY CHRISTMAS</i>	26	27	28	29	30	31 <i>New Moon</i>