

# Martian Chronicles

Volume 24 Issue 8

August, 2005

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

**Price \$6.00**

**See Mildred Simpson,  
Treasure to get yours.**

## Up Coming Club Events

### August 2005

12th :M.A.R.S. Club Meeting

Program: Deep Space Impact Update

by Jimmy Thomas

7:30 pm in the Planetarium at  
MOSI

13th: MOSI SkyWatch

8:00 pm at MOSI if you want to  
know how the weather is on Sky  
watch Saturdays e-mail: Rocky  
Roderback at y00per@gate.net



### September 2005

1st: Science Library Talk "What's Up: Astronomy for Today?"

7:00 in the Planetarium at MOSI

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

Program: Update on the progress of the new Planetarium at MOSI..

by : Alan Peche, Director of Public Programs, MOSI

**Visit the Science Library at MOSI and Check Out a book.**

*Collision Course! Cosmic Impact and Life on Earth* by Alfred Bortz

*Comets* by Gregory Vogt

*Comets, Meteors, Asteroids* by John Man

*Cosmic Pinball: The Science of Comets, Meteors, and Asteroids* by Carolyn Sumners

List provided by Elizabeth Muller

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**Night Sky Network**

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



## Starhopping For Beginners : Mighty, Mighty Meteors

By Tanja Diederich

August buzzes with talk of the Perseid Meteor Shower (August 11-12). In 2003 I attended Stellaphane on a Vermont mountain waiting for the dust from comet Swift-Tuttle to slam into our atmosphere. Our guest speaker was David Levy, and I was happy to be there with my telescoping friend, Ed Ting (scopereviews.com).

Here's a quick list for the best meteor shower viewing results.

- 1.) Meteor Showers are best after 2 A.M.
- 2.) The darker/clearer the sky, the more meteors you'll see. Avoid street lights, house and

car lights.

- 3.) Allow your eyes twenty minutes to adjust to the darkness. I usually look for stuff through my telescope to entertain myself.
- 4.) Lay down on a blanket or lawn chair. (Don't stand craning your head back).
- 5.) Make yourself comfortable: drinks, food, bug spray.
- 6.) Although the meteors appear to radiate from the constellation of Perseus, if you stare at Perseus, you'll lower the number of meteors you'll see,

Happy Starhopping and Meteor Hunting.

Some things you can look for while you are waiting in a dark sky:

- 1.) Mars in the East (N, B,T)
- 2.) Alberio in Cygnus in the West (T)
- 3.) Double Cluster near Cassiopeia in the North (N, B, T)
- 4.) Hercules Globular Cluster in West (T)
- 5.) Andromeda Galaxy in the North (T)
- 6.) Pleiades in the East (N, B, T)

## From the Keeper of the Frog Scope

By Frances Ferguson, President

Hello fellow M.A.R.S. Club Members, I am providing updated information this month.

### Night Sky Network

Sorry about the DVD not working properly during the presentation. I will have copies of the CD available at the meeting for anyone who would like them. I believe these activities will help the club's outreach program.

### Star Parties

I have not heard from Karen Pate from the Crystal Spring Preserve about the use of the Preserve for a star party. I am still hoping we will

be able to have one before the end of my term.

### Calendars

Mildred Simpson will be selling the 2006 Calendars the next meeting. Cost \$6.00 each.

### Membership Dues

Mildred Simpson will be accepting your dues for the new year in September. Remember the fiscal year runs September 1- August 30. Dues are \$15.00 for single membership and \$20.00 for family membership.

### Astronomical League

an e-mail message to Karen Pate from the Crystal Spring Preserve and she has not heard back. Jim Viggiano reported he has not check on a site in East Hillsborough. New Business  
Magnificent Desolation: Walking on the Moon in 3D – Channelside Complex has contacted the club to see if we are interested in attending an advance Screening. Frances will continue to get more information about this event. Astronomical League – Mildred Simpson suggested the club use the extra money in our Treasury to join the Astronomical League. Discussion was held and the sug-

We are still looking into the information about the Astronomical League and the benefits to the club should we decide to join.

### Up Coming Election

I hope everyone is contemplating how you can become more involved in the club. One way is to serve as an officer for one year. The jobs are not hard. The club needs new faces in the officer position to improve and grow. I am looking forward to having a break from the office of President after completing two years in a row. For those members who think I will accept another year, think twice!!!

## Minuets of July 2005 Meeting

There were 14 members and guest present.

Frances Ferguson presented the PlanetQuest Outreach ToolKit from the Night Sky Network. About half way through the DVD refused to play the disk and Frances demonstrate the activities.

### Business Meeting

Frances Ferguson opened the meeting.

Treasure Report- The club's Operating Account has \$600.00 the Club's Reserved Account has \$32.55 (this is after the paying for the calendars).

### Old Business

Star Party – Frances reported she had sent

gestion was presented to have Mildred investigate the cost and the benefits to the club.

Jim Viggiano suggested we use the money to take a trip somewhere. Frances asked everyone to think about what we should do with the money as a club.

Meeting adjointed at 9:00pm.



## Newest Weather Sentry Takes Up Watch

by Patrick L. Barry

Today, we've become accustomed to seeing images of the Earth's swirling atmosphere from space every night on the evening news.

Before 1960, no one had ever seen such images.

The first-ever weather satellite was launched that year, kicking off a long line of weather satellites that have kept a continuous watch on our planet's fickle atmosphere—45 years and counting! The high-quality, extended weather forecasts that these satellites make possible have become an indispensable part of our modern society, helping commercial aircraft, recreational boaters, and even military operations avoid unnecessary risk from hazardous weather.

But satellites don't last forever. Parts wear out, radiation takes its toll, and atmospheric drag slowly pulls the satellite out of orbit. Many weather satellites have a design life of only 2 years, though often they can last 5 or 10 years, or more. A steady schedule of new satellite launches is needed to keep the weather report on the news each night.

In May 2005, NASA successfully launched the latest in this long line of weather satellites. Dubbed NOAA-N at launch and renamed NOAA-18 once it reached orbit, this satellite will take over for the older satellite NOAA-16, which was launched in September 2000.

"NOAA always keeps at least two satellites in low-Earth orbit, circling the poles 14 times each day," explains Wilfred E. Mazur, Polar Satellite Acquisition Manager, NOAA/NESDIS. "As Earth rotates, these satellites end up covering Earth's entire surface each day. In fact, with two satellites in orbit, NOAA covers each spot on the Earth four times each day, twice during the day and twice at night," Mazur says.

By orbiting close to Earth (NOAA-18 is only 870 km above the ground), these "low-Earth orbit" satellites provide a detailed view of the weather. The other type of weather satellite, "geosynchronous," orbits much farther out at 35,786 km. At that altitude, geosynchronous satellites can keep a constant watch on whole continents, but without the kind of detail that NOAA-18 can provide.

In particular, low-Earth orbiting satellites have the ability to use microwave radiometers to measure temperature and moisture in the atmosphere—two key measurements used for weather prediction that, for technical reasons, cannot be sensed by distant geosynchronous satellites.

With NOAA-18 successfully placed in orbit, the 45-year legacy of high-tech weather forecasts that we're accustomed to will go on.

Find out more about NOAA-18 and the history of polar-orbiting weather satellites at <http://goespoes.gsfc.nasa.gov/poes>. For kids and anyone else curious about the concept, the difference between polar and geosynchronous orbits is explained at [http://spaceplace.nasa.gov/en/kids/goes/goes\\_poes\\_orbits.shtml](http://spaceplace.nasa.gov/en/kids/goes/goes_poes_orbits.shtml).



*NOAA-18, the newest in a long line of weather and environmental satellites, launched May 20,*

# NASA's Hubble Space Telescope has spied a menagerie of galaxies.

Gazing deep into the universe, NASA's Hubble Space Telescope has spied a menagerie of galaxies. Located within the same tiny region of space, these numerous galaxies display an assortment of unique characteristics. Some are big; some are small. A few are relatively nearby, but most are far away. Hundreds of these faint galaxies

away. Hundreds of these faint



galaxies have never been seen before until their light was captured by Hubble.

Credit: NASA, ESA, and The Hubble Heritage Team (STScI/AURA)

Acknowledgment: J. Blakeslee (JHU) and R. Thompson (University of Arizona)

## The Tenth Planet

A planet larger than Pluto has been discovered in the outlying regions of the solar system.

The planet was discovered using the Samuel Oschin Telescope at Palomar Observatory near San Diego, Calif. The discovery was announced today by planetary scientist Dr. Mike Brown of the California Institute of Technology in Pasadena, Calif., whose research is partly funded by NASA.

The planet is a typical member of the Kuiper belt, but its sheer size in relation to the nine known planets means that it can only be classified as a planet, Brown said. Currently about 97 times further from the sun than the Earth, the planet is the farthest-known object in the solar system, and the third brightest of the Kuiper belt objects.



"It will be visible with a telescope over the next six months and is currently almost directly overhead in the early-morning eastern sky, in the constellation Cetus," said Brown, who made the discovery with colleagues Chad Trujillo, of the Gemini Observatory in Mauna Kea, Hawaii, and David Rabinowitz, of Yale University, New Haven, Conn., on January 8.

Brown, Trujillo and Rabinowitz first photographed the new planet with the 48-inch Samuel Oschin Telescope on October 31, 2003. However, the object was so far

away that its motion was not detected until they reanalyzed the data in January of this year. In the last seven months, the scientists have been studying the planet to better estimate its size and its motions.

"It's definitely bigger than Pluto," said Brown, who is a professor of planetary astronomy.

Scientists can infer the size of a solar system object by its brightness, just as one can infer the size of a faraway light bulb if one knows its wattage. The reflectance of the planet is not yet known. Scientists can not yet tell how much light from the sun is reflected away, but the amount of light the planet reflects puts a lower limit on its size.

"Even if it reflected 100 percent of the light reaching it, it would still be as big as Pluto," says Brown. "I'd say it's probably one and a half times the size of Pluto, but we're not sure yet of the final size.

"We are 100 percent confident that this is the first object bigger than Pluto ever found in the outer solar system," Brown added.

A name for the new planet has been proposed by the discoverers to the International Astronomical Union, and they are awaiting the decision of this body before announcing the name.

M. A. R. S. Astronomy Club  
Frances Ferguson

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*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

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Vice President—

Treasurer—Mildred Simpson, 813-238-8299

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Secretary—Katherine Holland, 813-988-6689

Newsletter— Frances Ferguson

Web Master— Dennis Farr

Education Outreach Coordinator—

Jimmy Thomas, 813-88-7187

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*

# August 2005

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