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M.A.R.S.
8712 Cobbler Place
Tampa, FL 33615



Martian Chronicles

Newsletter of the Museum Astronomical Resource Society
Volume 18, Number 12
December 2002

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UPCOMING EVENTS

DECEMBER 2002

- Sat. 12/07, SPAC Star Party, from dusk until dawn, at Hickory Hill (possible, call SPAC to confirm)
- Fri. 12/13, 7:30 p.m. - Monthly Meeting at MOSI, Annual Holiday Party and Election of Club Officers
- Sat. 12/14, evening - MOSI SkyWatch
- Sat. 12/21, evening - MARS SkyWatch at MOSI
- Sat. 12/28, evening - MARS SkyWatch at MOSI
- Sat. 01/04, SPAC Star Party, from dusk until dawn, at Hickory Hill (possible, call SPAC to confirm)

MOSI SkyWatch: Observing sessions are normally held on the Saturday evening nearest the First Quarter Moon and the two Saturday evenings following. SkyWatch sessions are held at MOSI. Call to check on any schedule changes. The Saunders Planetarium: 813-987-6360; MOSI Information Desk: 813-987-6012

JANUARY 2003

- Sat. 01/04, SPAC Star Party, from dusk until dawn, at Hickory Hill (possible, call SPAC to confirm)
- Fri. 01/10, 7:30 p.m. - Monthly Meeting at MOSI, Program: To Be Announced
- (Sat. 01/11, evening - MOSI SkyWatch, tentative, not confirmed)
- (Sat. 01/18, evening - MARS SkyWatch at MOSI, tentative, not confirmed)
- (Sat. 01/25, evening - MARS SkyWatch at MOSI, tentative, not confirmed)
- Sat. 02/01, SPAC Star Party, from dusk until dawn, at Hickory Hill (possible, call SPAC to confirm)

SPAC Star Parties: Hosted by the St. Petersburg Astronomy Club (SPAC). Held on the Saturday evenings nearest the new moon, at Hickory Hill near Brooksville. For more information call the SPAC hotline: 813-792-0721

FIRST LIGHT

Hello, friends.

Those of you who only receive the snail-mail version of this publication also recently received the November edition, possibly in the same mailing as this December edition. The November edition was prepared several weeks back and was distributed through e-mail and at the November 8 club meeting. However, the opportunity to reproduce, fold, stamp and mail the issue did not present itself in the growing onrush of work, family and the Thanksgiving season. This delay has caused me to, again, review my club responsibilities.

I first took up the editing of the club newsletter in the fall of 1996 when I, along with club members France Ferguson, Mildred Simpson and Tom Sullivan, decided to assist our burned-out club officers in making our club better. Since that time our club newsletter has gone through many changes and hopefully most of them have been for the better. I hope that you have enjoyed the articles, biographies and other bits of information that I have researched over the years and placed within these pages. They have given me great joy. With the creation of the MARS-Update e-mail list, we are now able to distribute our publications to a wider audience and make them more accessible to the astronomically inclined. Editing this newsletter has given me great personal satisfaction and a sense of accomplishment.

In the past few years my work and family responsibilities have taken more of my free time and my work on the club newsletter has suffered, resulting in late newsletters and combined-month newsletters. While I have had offers within the membership of assistance with newsletter distribution, these offers were limited by the qualification that the newsletter must be ready prior to the month for which it was intended. The clear logic in this offer was to encourage the distribution of SOMETHING in time for the membership to actually enjoy within the intended month, even if the newsletter contained nothing more than a reminder to attend the monthly meeting. Unfortunately, I have found it difficult to present you with a half-hearted product. I am therefore late, again, for December.

After careful consideration, I now realize that I can no longer perform to the best of my ability in the capacity of club newsletter editor. Therefore, I am sad to declare that I will not offer to serve in this capacity in the coming year. It is my hope that handing this duty to another club member will permit me to serve the club better in other club duties to which I have saddled myself (president, frequent presenter, e-mail moderator, and webmaster).

In order to maintain the cleanest transition of editorial duties, it would be best that the new editor have ready access to a PC, a laser or inkjet printer, Microsoft Word software (as current a version as possible) and some experience in the use of Microsoft Word. Access to the Internet and e-mail are also pluses for performing the duties of editor.

Be assured that I will provide to the new editor all of the assistance that I can. For the moment, I will continue to maintain the club membership list and print the mailing labels for the editor. You may also be assured that I will provide plenty of contributions for reprinting within these pages.

Thank you for your encouragement and patience with regard to the editing of the newsletters through the years. I hope that you will show the new editor the same measure of encouragement and patience. I want to wish you the warmest holiday greetings and I hope that you will take time this season to be with those who are close to you.

Clear Skies,

Jimmy Thomas

MARTIAN HAPPENINGS

DECEMBER MEETING

At the December 13 meeting we will hold our annual club Christmas potluck party. Please bring your favorite holiday goodie for all to enjoy. If you cannot bring a goodie, please come and enjoy those brought by others. We will also hold our annual club elections. For more on the elections, read the On the Record section in this newsletter. Unfortunately, we will not have sufficient time on this evening to enjoy a planetarium show. MOSI will be hosting a camp-in this evening, so we will have to end our celebrating promptly and be thorough with our cleanup detail. I hope to see you at the meeting/party/elections.

DECEMBER SKYWATCH DATES

The SkyWatch dates for December are the evenings of December 14, 21 and 28. MOSI and MARS will participate on the evening of December 14 and MARS will host the SkyWatch events on December 21 and 28. To avoid public disappointment, MARS-only SkyWatch dates will be cancelled if the sign-up sheet does not indicate support on those nights by at least two volunteers and at least one telescope.

WHAT PRESENTATIONS DO YOU WANT TO SEE?

Do you have a particular astronomical topic that you would like to learn more about? Get studying! We need presentations for our monthly meetings and our best ones come from enthusiastic and knowledgeable members. Why not start right now? Decide on a topic, schedule yourself for a particular month, and then get to work. You can do it. And we all will benefit.

ON THE RECORD by Jimmy Thomas, President

MARS will hold elections for the various club duties at the December meeting. The club has never stood on formality, so in typical M.A.R.S. fashion, the responsibilities are emphasized over the title. Two people may share a duty, but they must coordinate their actions in order to fulfill the responsibilities of the duty to which they are elected. One person may perform more than one duty, but no one should try to burden themselves with too many tasks. The persons elected will be expected to perform their duties from January through December of the coming year. The responsibilities are as follows:

Running the Meetings and Coordinating the other Responsibilities (President) - This person makes sure that each meeting runs smoothly and stays on track most of the time. This person also works with the other officers in the performance of their duties.

Scheduling Club Programs (Vice President) - This person schedules programs for the monthly meetings and arranges speakers on the various program subjects. This person presides over the monthly meetings if the president is not available.

Treasurer - This person collects the money given to the club and controls the distribution of these funds for club expenses such as the newsletter, the club telescope, the club library, and other items. The club has no bank account, so special provisions are made to secure the funds. The specifics of these provisions will be discussed with the individual elected. In addition to their role as treasurer, this person presides over the monthly meetings, or designates someone to preside, if the president and vice president are not available.

Recording the Minutes (Secretary) - This person writes down the events of each meeting and presents them, either electronically or in printed form, to the newsletter editor for publication in the next club newsletter. In this way the membership may review and discuss them. These minutes not only provide continuity to the meeting. They are required by MOSI, our club sponsor, to track the activity of the club.

Acquiring New Members - At public events this person is not tied to a telescope, but rather is free to circulate. They answer questions about the club and channel back information on those wishing to subscribe to the newsletter or join the club. This is a very low-tech job, great for technophobes.

Organizing Outside Activities - This is the person who can answer the question, "What does your club offer?" The Saturday evening SkyWatch sessions and the dates of the Hickory Hill star parties fall into this person's bailiwick, but there is much more. This person researches and generates club interest in events such as meteor showers, lunar and solar eclipses, comet passings (and crashes), the annual Astronomy Day, and other similar events. Once enough members are committed to support a particular event, this person must then coordinate with MOSI to get permission for and allow scheduling of the event on MOSI property. This person may also designate other club members to coordinate a specific club event. M.A.R.S. Events may be held away from MOSI property as long as they do not conflict with a similar event being held simultaneously by MOSI. After all, they are our sponsor and deserve and expect our support.

Astronomy Day Chairperson - This person coordinates the annual Astronomy Day activities. They encourage club participation and work with MOSI to requisition the necessary materials. Astronomy Day will be Saturday, May 10 this coming year.

Editing and Distributing the Newsletter - This person or persons publish the club's monthly newsletter and mails it to the members. This person may handle the electronic distribution as well or coordinate that task with another individual.

Club Librarian - This person controls the borrowing of library material and designates someone to perform this duty in their place if they are not able to attend a club meeting.

Again, the voting will be held at the December meeting. All paying members have a vote. If you cannot attend, be sure to contact a current officer and make your wishes known. Remember that this is your club. The more put into it, the more you get out of it. Please consider how you can help M.A.R.S. to grow in the coming year.

MARS MINUTES

November 2002 Meeting of M.A.R.S.

November 8, 2002

Jimmy Thomas, President

Wade Holland, Vice President

Jerry Scalzo, Treasurer

Alvin Dozier, Secretary

Reported by Jimmy Thomas

The meeting was held in The Saunders Planetarium at MOSI in Tampa. The meeting began at 7:30 pm. There were 14 people present.

Jimmy passed around a sign-up sheet for the November and December SkyWatch dates. Jimmy noted the importance of having members committed to specific dates in order to prevent disappointing the public who come out.

Jimmy then introduced France Ferguson who gave a presentation in the form of a game called "It Doesn't Look Like That in My Telescope." Frances projected on the dome images of astronomical objects and the attendees were encouraged to identify the images. The game featured images taken by astrophotographer Jack Newton. Some of the images included were as follows: the Ring Nebula (M57), the Dumbbell (M27), the Whirlpool Galaxy (M51), the Pleiades (M45), the Crab Nebula (M1), the Pinwheel Galaxy (M101), the Great Nebula in Orion (M42), the Sombrero Galaxy (M104), and several others. At the conclusion, members commented that they would like to play some more. Craig MacDougal suggested that it might be the subject of a future club presentation.

Club member Pat Morris then asked Craig about star hopping, which he referenced during discussions of the objects in the presentation. Craig noted that it had been some time since his last presentation on star hopping and suggested that he might present the subject again at the January meeting with the help of The Saunders Planetarium.

Craig then informed the group of an upcoming lunar occultation of a star in the constellation Sagittarius. Craig used the planetarium to illustrate the event and agreed to alert the group a few minutes prior to the actual event so that they might attempt to see it above the western horizon.

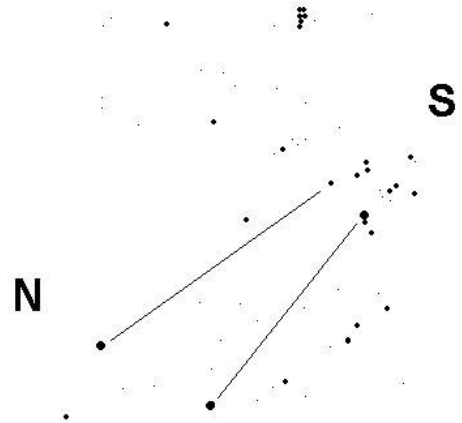
The group discussed the new planetarium at the St. Petersburg Junior College. Two copies of the recent Tampa Tribune newspaper article were circulated during the discussion.

At about 9:50 pm, the meeting then adjourned to the western edge of the third floor where most attendees remained in hopes of viewing the lunar occultation. Unfortunately, a cloudy haze obscured the background stars and even the Moon was covered by clouds at the time of the expected occultation. Following the astronomical "fizzle," the group conversed informally and slowly made their way to the parking lot. Some discussions continued there for a time as well.

CONSTELLATION OF THE MONTH by Craig MacDougal

Taurus

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 bright 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 9:00 PM and face 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. Its name is **ALDEBARAN** (al-DEB-er-an). Aldebaran is a good example of a red giant star. It represents the blood-shot eye of the bull. Aldebaran is at one end of a "V" made up 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 wonders, 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" shaped asterism of the 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 tidal effects 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.



One of the things that really bother me about this astronomy stuff is the great number of misconceptions that so many people have. Some recent phone calls I took illustrate this.

Venus is now quite prominent in the southwestern sky, or perhaps I should say Spaceship Venus. It is brilliant enough to draw the casual eye to it, and different enough to cause wonder. Unfortunately, too many people don't have enough background information and/or critical thinking practice to come up with a reasonable explanation for what they see. The popular media have fed on this vacuum with so many wild (and unfounded) stories that for many it has become reasonable to believe the fantastic without challenge. In the past few days I have had to disappoint several who mistook Venus, Antares, Arcturus, and Jupiter for space vehicles, either **OURS** or **THEIRS**.

What struck me was that underlying the extraterrestrial assumptions was an utter lack of knowledge of how spaceships should behave (if seen), and how natural objects do look. In fact, as I think about it, what really barks up my tree is the widespread belief that there is little of the natural universe for the casual observer to see at all. Our baleful cries about the evils of streetlights may have been too effective, in a way. Things that our grandfathers took for granted as common knowledge are now all but forgotten. But even under blazing city lights there are dozens of fairly easy naked-eye objects. We are, in fact, coming up on a remarkable time, when no less than **EIGHTEEN** objects of at least first magnitude will be visible all at once. Thirteen stars and four planets, to be exact. Some of the brightest and easiest deep-sky objects will accompany them.

Now that drier weather is **FINALLY** upon us, more people than ever will be able to look up and see something. Experience tells me that the overwhelming majority will make some unfortunate mistakes. Take that opportunity to jump in and tell someone about the amazing subtlety and cleverness of Ma Nature in producing the marvel that they see. But be positive. Don't denigrate their mistake too much or you'll lose them. Instead, harp on the notion of how marvelous the truth is, and how even more amazing is the human mind for comprehending it.

Phoenicid Meteor Shower

This is a minor southern hemisphere shower, visible from December 3 to 7 with the peak on December 5. The shower has an average rate of 50 per hour. They appear to originate from a point near the star Zeta Phoenicis in the constellation Phoenix (RA 01hrs 00min, Dec -55°). The parent comet of this shower is not known.

Geminid Meteor Shower

This is a reliable shower, giving consistent rates each year. Geminids have been observed since 1838. It has not been confirmed what causes this shower, although the planet-crossing asteroid 3200 Phaethon does move in the same orbit as the dust stream. It may be possible that Phaethon is an extinct cometary core. Meteors from the Geminid shower may be visible from December 7 through 16 with the peak occurring December 13/14. Meteors from the Geminid shower are yellowish in color and average a magnitude of 2.5. The meteor hourly rates may range from 58 to possibly 100 or more at the shower's peak. The Geminid hourly rates tend to increase steadily for several days before maximum, and then drop off quickly in the days following. The meteors will appear to originate from a point in the sky near the star Castor in the constellation Gemini (RA 7hrs 28min, Dec +32°).

Ursid Meteor Shower

This shower is caused by dust from Comet P/Tuttle, also known as 1790 II. The comet was originally found by French astronomer Pierre Méchain in 1790, and rediscovered by Horace Tuttle of the Harvard Observatory in 1858. This comet has a period of 13.7 years. Meteors from the Ursid shower may be visible from December 17 through 25 with the peak occurring December 21/22. The Ursid meteor rate is not spectacular, averaging only 5 per hour. The meteors will appear to originate from a point near the star Beta Ursae in the middle of the constellation Ursa Major (RA 14hrs 28min, Dec +76°) in the northern sky.

Observing Meteors

Meteors are best viewed from a dark-sky location. Observers in for the duration of the evening, or at least for several hours, should bring along a few things: a sleeping bag or blankets for warmth, a recliner or lawn chair, a hot beverage to help cut the chill, and binoculars to view the smoke trails of just-past meteors.

THIS MONTH IN HISTORY by James M. Thomas

December 1, 1994 - Western Europe's 70th Ariane rocket crashed into the Atlantic Ocean with the \$150 million PanAmsat-3 telecom satellite after launch from Kourou, French Guiana.

December 2, 1993 - the Space Shuttle Endeavour was launched on a repair mission of the Hubble Space Telescope (HST). Astronauts Richard O. Covey, Kenneth D Bowersox, Claude Nicollier, Story Musgrave, Thomas Akers, Karen Thornton and Jeffery A. Hoffman worked together to rendezvous with the HST, capture, service and then release it. Akers set a new U.S. EVA duration record of 29 hours and 40 minutes. The crew returned Dec. 13.

December 3, 1917 - Four meteorites, weighing 22-1/4, 2-1/2, 2-3/8, and 2-1/4 pounds, fell in Strathmore, Perthshire, Scotland. One of the four crashed through the roof of a house.

December 4, 1965 - A Titan rocket Launched Gemini 7 with astronauts Frank Borman and James A. Lovell. They were joined in space on Dec. 15 by Walter M. Schirra and Thomas P. Stafford in Gemini 6, completing the first U.S. space rendezvous. Gemini 6 returned to Earth on Dec. 16. Gemini 7 returned on Dec. 18, setting the record for the longest flight of the Gemini program, 330 hours, 35 minutes.

December 6, 1957 - Following a third successful test flight, the Vanguard team attempted a satellite launch. A few seconds after liftoff, when Vanguard had risen about four feet, its engines lost thrust and the rocket and its beeping payload fell back upon the launch pad and exploded in a flaming fireball that further seared American confidence in their national space program.

December 7, 1798 - A strong shower of Andromedid meteors was seen. The actual hourly meteor rate is not known.

December 7, 1838 - A strong shower of Andromedid meteors was seen. The actual hourly meteor rate is not known.

December 7, 1968 - The U.S. satellite OAO 2 (Orbiting Astronomical Observatory 2) was launched into Earth orbit. OAO 2 observed the Sun, stars, planets, and nebulae in the ultraviolet spectrum, which does not reach the Earth's surface.

December 7, 1972 - Apollo 17 launched with astronauts Eugene Cernan, Ronald E. Evans and Harrison H. Schmitt on the last flight of the Apollo program. Cernan and Schmitt were the last astronauts to walk on the Moon, setting a record stay of more than 75 hours. The crew returned to Earth on Dec. 19.

December 10, 1974 - A Titan-Centaur rocket launched the U.S. spacecraft Helios 1 toward the Sun. Helios 1 approached the Sun to within the outer solar corona and took density, temperature, velocity, and magnetic field measurements.

December 13, 1795 - A meteorite weighing 56 pounds fell in Wold Cottage, Yorkshire, England.

December 16, 1965 - The U.S. spacecraft Pioneer 6 was launched into solar orbit. Pioneer 6 performed an early scientific study of the Sun from interplanetary space.

December 21, 1968 - Apollo 8 launched with astronauts Frank Borman, James A. Lovell and William A. Anders. They completed the first lunar orbit and piloted return, and relayed views of the lunar surface that were televised to earth. The crew returned to Earth on Dec. 27.

December 22, 1945 - A strong Ursid meteor shower was seen with the peak rate of around 100 per hour. It was later determined that the strong display was due to a swarm, or concentration of dust, on the opposite side of the orbit of the parent comet P/Tuttle.

December 24, 1965 - Meteorites fell over a wide area in the village of Barwell in Leicestershire, England. A total of 50 kilograms of material was recovered. Because the meteorites landed in an elliptical pattern, it was suggested that the meteorites were fragments of a larger body that broke up as it fell.

PUBLICATION INFORMATION

Martian Chronicles is published monthly by the Museum Astronomical Resource Society (also known as the MARS Astronomy Club) to provide club news and other items of interest to its members. MARS is sponsored by the Museum of Science and Industry (MOSI), Tampa, Florida. Annual club membership dues are \$15.00, which may be paid to any officer at club-sponsored events or mailed to the **CLUB MEMBERSHIP/RENEWAL ADDRESS** listed below. Make checks payable to Jerry Scalzo, our club treasurer. Newsletters are available to nonmembers by requesting a complimentary trial issue. Please send all inquiries, comments and newsletter contributions to the address below. The deadline for submitted contributions is the 15th of the month prior to the next issue. Contributions may be delayed in publication due to available space.

NEWSLETTER EDITION DETAILS

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Editor: Jimmy Thomas
Contributors: Craig MacDougal

CLUB MEMBERSHIP/RENEWAL ADDRESS:

M.A.R.S.
c/o Jerry Scalzo, Treasurer
2727 W. Fletcher Av., Apt 62D
Tampa, FL 33618

CLUB INFORMATION

MUSEUM ASTRONOMICAL RESOURCE SOCIETY
President - Jimmy Thomas, 813-888-7187, MARSAstro@aol.com
Vice President – Wade Holland, 813-988-6689, marshebe@earthlink.net
Treasurer – Jerry Scalzo, 813-263-6473, strek1@webtv.net
Secretary – Alvin Dozier, 813-979-0797, dozier12@hotmail.com
MOSI Contact - Craig MacDougal, 813-987-6339, MACDOUC@prodigy.net

Mailing address: 8712 Cobbler Place, Tampa, FL 33615
Web site: <http://members.aol.com/MARSAstro>
E-mail: MARSAstro@aol.com