Focal Point

May, 2012

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The May Membership Meeting

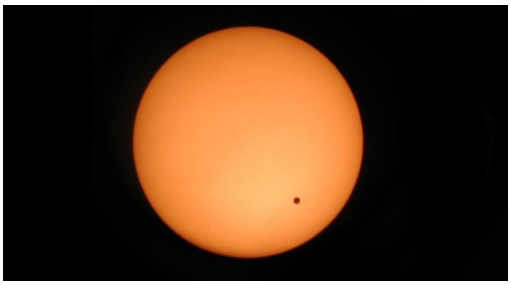
The upcoming General Membership Meeting is going to be held on May 11th, at 8:00 PM at the MAS Observatory. This will be a Business Meeting. We will elect new Board Members and Officers.

After the election Russell Chabot will give a talk about his and Ann's adventures in South America. They went on a cruise around Cape Horn, starting at Buenos Aires, Argentina and ending at Valparaiso, Chile. While on this cruise he tried to get some images of the night sky. The slideshow will include images of the southern sky.

Upcoming Public Nights

During the next five weeks the MAS will hold two Public Nights, one regular and one off schedule. The first one will be held on May 18th , at 7:30 PM., with Constellations—landmarks of the sky as a topic. Sue Timlin will be the speaker for the night.

The second one is linked to a rare astronomical event - a Venus transit. When Venus passes directly between Earth and the Sun, we see the planet as a small dot gliding slowly across the face of the Sun. On Tuesday, June 5th between 5:04:22 PM and sunset will be the last chance to see this event in your lifetime. After June 2012, the next transit will occur on December 11, 2117. For more information on time, location, eye protection visit the http://www.transitofvenus.org.



This event might generate huge interest from the public. Since our last Public Night we intensified the advertizing activity by contacting television channels and the director of the Milwaukee Public Museum Planetarium. They will announce our Public Night events for their audiences.

Help from all MAS members will be required to handle a possibly big crowd. If you have solar filter of solar telescope please bring it to the Observatory. To sign up in advance contact Sue Timlin at potatosue@wi.rr.com or during the upcoming meeting.

Treasurer's Report

The MAS has received $375.12 from donation, membership fees and the Astronomy Calendar selling.

The $500 voted for the repair of the controller of the Zemlock telescope was not used because the minor cost was covered by Scott Jamieson .

Payments of utility bills, insurance premiums and website maintenance totaled $612.71 in April.

The checking account balance as of March 16th is $4,935.43. The Albrecht fund is $8,070.62.

After compensating for projected bills and set asides the amount available for discretionary spending is $915.80.

Respectfully Submitted,

Neil Simmons, Treasurer

Observatory Report

The new 18" scope in the Albrecht Observatory was named after Kyle Baron who had donated it to the MAS.

The controller of the Zemlock telescope was successfully repaired, the scope regained its go-to capability. Next the mount's polar alignment has to be refined to improve the telescope's performance.

An attempt was made to replace the communication cable of the LX200 which was suspected to be faulty. Unfortunately the communication could not be re-established with the new cable. Further work needs to be done to locate the problem.

Russell Chabot has started gathering information and material for floor patching work of the A-dome. The Board approved $40 for this project.

Meeting Minutes

Held on April 20th at MAS Observatory, New Berlin.

The meeting was called to order at 8:03 PM by President, Henry Gerner.

Minutes of the March General Meeting, was read and approved.

The **Treasurer's Report** was read by Treasurer, Neil Simmons. Copy attached.

Observatory Director's Report was given by Henry Gerner.

There was no **Correspondence**

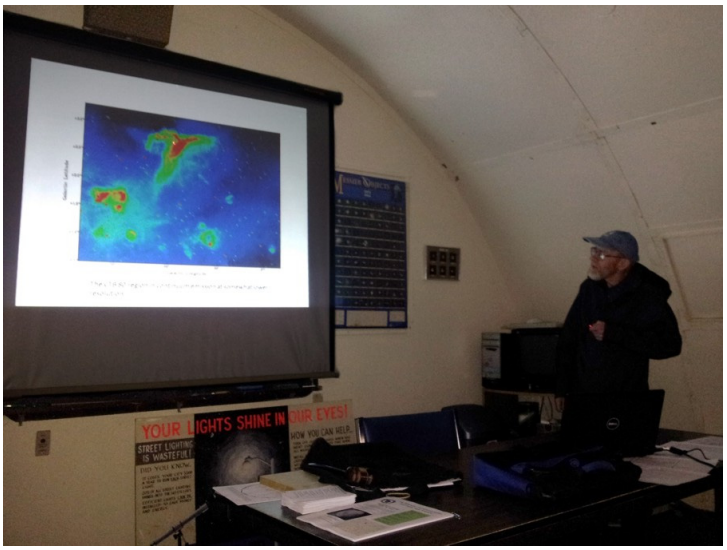
There was no **Old Business**

New Business: the members agreed to hold the January, February, and March Meetings of the next year at UWM, Physics Building.

Announcement - Henry welcomed the new members and announced that Saturdays are the keyholder nights.

Sue Timlin reminded the members about sign up sheets for the Public Nights.

The Program Brian Ganiere announced the guest speaker : Patrick E. Palmer, Professor Emeritus of the Department of Astronomy and Astrophysics at the University of Chicago, who gave a presentation entitled "**Observing with the newly upgraded Very Large Array**".



The meeting was adjourned at 9:04 PM

Respectfully Submitted,

Agnes Keszler, Secretary

MAS Editorials

Re-thinking the Keyholder Duties

In the past half year the MAS had experienced a surge of new members. The youngest one, a 13 year old student just joined us last month. The new members, and often the not very new ones too are eager to learn about the astronomy and using the telescopes. After all that was the reason they joined the Society.

So the Member's Nights were designed to help members to achieve their goals. Every Saturday night a senior member (Keyholder) is responsible to open up the MAS facilities on request from members. We highly encourage you not to be shy giving a phone call to the Keyholder on duty and telling him/her that you want to use the Observatory.

On the other hand, a discussion was started recently on how to simplify the communication between the Keyholder and members. Just an example of possible hardship: a member went for hiking while the forecast predicted iffy weather for the night, so he decides to call the Keyholder when he returns home and finds that the sky is clearing. But in the meantime the Keyholder, having received a call from another member already left to the Observatory so he cannot pick up the phone. The member most likely will stay at home instead of joining others in the Observatory. And this is not a complete fiction by the way.

There have been several proposals so far:

i) the Keyholders would go out to the Observatory rain or shine around sunset and stay for at least two hours. There are only four nights/year/keyholder! They can do maintenance or as Neil Simmons pioneered, holding classes. Neil's classes on setting circles on German Equatorial Mount, or using sky charts were very interesting and beneficial for everybody who attended. Other possible topics might include maintenance; imaging; use of astronomical software etc. Every Keyholder has a unique knowledge, which he/she might want to share with others. And most importantly those things do not necessarily require clear skies.

ii) requirement for the Keyholders to be on the MAS Google group, communicate their intentions to the membership, and check frequently the messages on their day of duty. Also, the members who already contacted the Keyholder should put that info on the Google group. This way anybody who go online can obtain and share information, and nobody would miss the opportunity for observing.

iii) as inexperienced new members rarely have solid observation goals, the Keyholder rather than just "helping" members might come up with a project (from the area of their deepest knowledge or interest) that newer members can join, and learn through active participation.

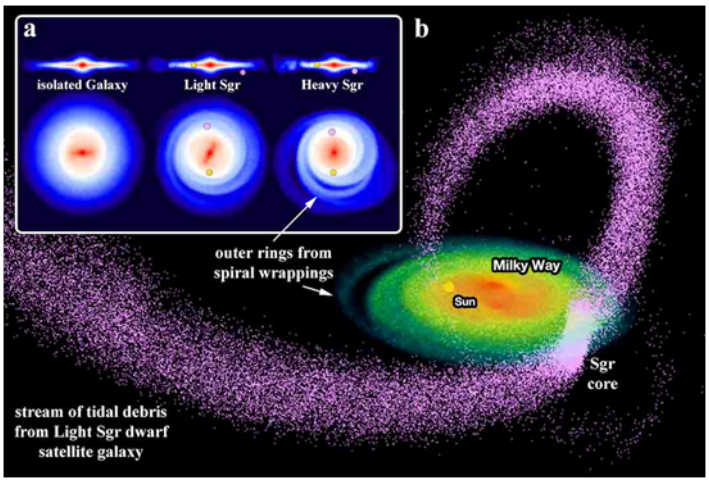
Please, give us some feedback on this issue. Any comments or suggestions would be much appreciated.

In the Astronomical News

How the Milky Way Became Spiral?

Astronomers have long known that the Milky Way is a spiral galaxy. But how did our home galaxy get its beautiful spiral arms? A simulation run on the GreenPlanet supercomputer cluster at the University of California, Irvine suggests its spiral structure may have been triggered by an act of cosmic violence: a series of collisions with a dwarf galaxy.

Since 1994, it's been known that the Sagittarius Dwarf galaxy is in a polar orbit around the Milky Way and in the process of merging with our galaxy. In 2003, infrared telescopes and supercomputers that traced the orbital motions of its stars revealed that the Sagittarius Dwarf had actually collided with the Milky Way twice - once 1.9 billion years ago and again 0.9 billion years ago - and that it is now coming in for a third collision in just another 10 million years.



Computer simulations visualized the disk of the Milky Way galaxy for three cases: no impact with a dwarf galaxy, impact with a Sagittarius Dwarf galaxy of lower mass (Light Sgr), and impact with a Sagittarius Dwarf galaxy of higher mass (Heavy Sgr). Our Milky Way galaxy is shown both edge-on and face-on in the inset panels; the sun's location is marked as a yellow dot and the present location of the Sagittarius dwarf's remnant core is marked as a pink dot, as shown after more than two billion years of isolated evolution. Shown in the background is a global rendering of the 'Light Sgr' tidal debris and the Milky Way disk.

Until recently, most investigators have been studying how the Milky Way's tremendous gravitational field and tidal forces are ripping the Sagittarius Dwarf into long streamers of stars.

However, former Irvine graduate student Chris Purcell asked a different question: What effects did the repeated collisions of the Sagittarius Dwarf, with its invisible but massive halo of dark matter, have on the larger Milky Way itself?

Ordinary matter makes up only 4.6 percent of the cosmic density; only 0.5 percent is visible. Nearly five times that much - 23 percent - of the universe is made of invisible, transparent "dark matter," whose existence is felt through its gravitational influence. It is now known that every galaxy, including the Sagittarius Dwarf (pre-collision) and our own Milky Way, resides at the center of a giant halo of dark matter several times larger in radius and many times greater in mass.

Pre-collision, the Sagittarius Dwarf was quite large - somewhere in number of stars between the Small and Large Magellanic Clouds (the Milky Way's two irregular galaxy companions visible to the naked eye from the southern hemisphere). But its dark matter mass likely exceeded the mass of all the visible stars in the Milky Way.

When all that dark matter first smacked into the Milky Way, that first impact produced instabilities that were amplified and quickly formed spiral arms and associated ring-like structures in the outskirts of our Galaxy.

Purcell's paper has been published as a Letter in the September 15, 2011 issue of *Nature*.

Two computer-simulation movies of the impact appear in the press release at http://hipacc.ucsc.edu/MilkyWayImpact.html

Trudy E. Bell, M.A.

The University of California High-Performance AstroComputing Center (UC-HIPACC), based at the University of California, Santa Cruz, is a consortium of nine University of California campuses and three Department of Energy laboratories (Lawrence Berkeley Laboratory, Lawrence Livermore Laboratory, and Los Alamos National Laboratory). UC-HiPACC fosters collaborations among researchers at the various sites by offering travel and other grants, co-sponsoring conferences, and drawing attention to the world-class resources for computational astronomy within the University of California system. More information appears at http://hipacc.ucsc.edu .

Adopt a Telescope Program - Signup Sheet

	Adoptee	Scope	Location
1	Sue Timlin	18" F/4.5 Obsession	Wiesen Observatory
2	Neil Simmons	12.5" F/7.4 Buckstaff	B Dome
3	Russell Chabot	12.5" F/9 Armfield	A Dome
4	Dan Yanko	18" F/4.5 Obsession	Albrecht Observatory
5	Tamas Kriska	25" F/15 Zemlock	Z Dome
6	Henry Gerner	12" LX 200	Tangney Observatory
7	Jeffrey Fillian	14" Z-Two scope	Ray Zit Observatory
8	Kevin & John McCarthy	10" LX 200	Jim Toeller Observatory

At Your Service

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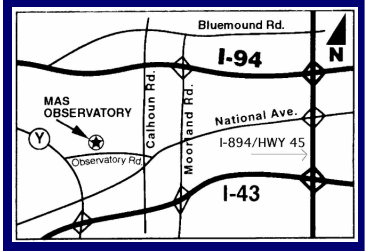
Tamas Kriska	414-475-6267
Lana Silke	262-966-4929
Neil Simmons	262-889-2039
Sue Timlin	414-460-4886
Dan Yanko	262-255-3482

May/June Key Holders

5/12	Tim Hoff	262-662-2212
5/19	Scott Jamieson	262-592-3049
5/26	Lee Keith	414-425-2331
6/2	Scott Laskowski	414-421-3517
6/9	Jill Roberts	414-587-9422
6/16	Tom Schmidtkunz	414-352-1674



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