MILWAUKEE ASTRONOMICAL SOCIETY

FOCAL POINT

September, 2016

Membership Meeting on September 16th

After the summer break we will return to our usual schedule of membership meetings on the third Friday of each month. The first one will take place on September 16th at 8:00 PM at the Observatory. The topic will be: **The use of dobsonian telescopes for visual observation**. Following a short presentation we will hold a demonstration and a hands-on training on how to use the new 12.5" Portaball telescope. You can read more about this telescope in the Observatory Director's report on page 2. **Find more info on page 3.**

The meeting will be preceded by a Board Meeting, which is always open to any member who is interested, and will start at 7:00 PM.

Inside this

MAS Membership Renewal

Since it is September, we are opening the 2017 membership renewal period.

If you prefer to do it online just follow this link: www.milwaukeeastro.org/renew.

The renewal form will also be sent out attached to a Renewal Notice email. Print it out and send it back along with a check made payable to The Milwaukee Astronomical Society.

If you joined the Club after January 1st, 2016 do not take any action, your membership is active till the next renewal period. Thank you for being member of the Milwaukee Astronomical Society.

Public Night on September 23rd

We have two more Public Nights left for this season. The next one is scheduled for Friday, September 23rd starting at 6:30 PM. The topic of the night will be the Gas Giants with Paul Smith as the presenter .

Based on the success of the past two Open House events we continue to assign each telescope a single object to show. Among those who visit all scopes and collect stickers at each station prizes will be raffled out.

Any help from members would be appreciated.

Observatory Report

On July 20th the MAS received a very generous donation from a gentleman named Kurt Huebner from Mukwonago, who gave us a MAG1 Instruments 12.5" Portaball Telescope. Kurt felt that the scope was getting too heavy for him to be used but rather than selling it he wanted the scope to be given to the MAS, which he once was a member of.

The optics made by Zambuto Optical Co. are in excellent condition but there were a few minor repairs that needed some attention, and the scope's battery was dead. All of the repairs have been made and the battery replaced so the scope is ready to be used.

As to the use of the telescope I decided that rather then it staying at the Observatory where there are two 18" dobsonian scopes already, it be placed at a centrally located member's house where the scope can be picked up by members for short term use, up to a week. (to be continued on page 3)

Treasurer's Report

$12,149.19	***Starting Balance as of 7/09/2016***
	Expenditures
$56.39	Screens for Z dome
$36.00	Water/Sewer
$2.57	PayPal Fees
$52.00	Membership for raffle
$732.00	Acuity Insurance
$44.03	Battery for ball scope
$19.92	MAS picnic supplies
$63.18	WE Energies
$108.79	RE taxes
$200.00	Quonset fundraiser
-$1,314.86	TOTAL Expenditures
	Revenue
$220.00	Donations
$205.00	Book/Equipment Sale
$128.00	Membership Dues
$200.00	Public Night 08/05/16
$200.00	Bostic, Inc. donation
$953.00	TOTAL Revenue
$11,787.33	***Ending Balance as of 8/08/2016***

Respectfully Submitted,
Sue Timlin, Treasurer

Meeting Minutes

Held on August 8th at the Observatory. The meeting was called to order at 7:06 PM by President, Tamas Kriska.

Minutes, **Treasurer's Report**, **Observatory Director's Report**, and the **Membership Report** were submitted electronically.

Old Business – Solar Observatory update: The POD arrived and was assembled. The caulking needs to be improved, and a hand grab handle should be put on. The Lunt and the white light telescopes were installed, the next step will be the polar alignment. A 2" eyepiece should be purchased for the white light scope.

Quonset Hut remodeling: We have so far $10,634.24 donation and the pledged floor work from Janice Edwards. An ad for selling the 26" mirror was sent to S&T magazine. There are still several small items worth few thousand to sell. Two of the 10" portascopes were sold.

Insurance: The new insurance was implemented on July 22nd and fully paid for a year.

Membership Meeting speakers: An email was sent to the Google group about asking for topics/ seeking speakers, but no feedback so far. We may consider alternating inviting speakers with teaching/demonstrating how to use our equipment on one scope/night basis.

New Business - A former member Kurt Huebner donated a 12.5" portaball scope to the Club. The scope will be used as a loaner scope stored at Tamas' house and can be checked out for no longer than a week. The loaner must meet certain criteria (at least one year of membership, experience, demonstrate the ability to assemble and use the scope). The loaner will also be responsible for any damage caused.

Both axes of the B-scope will possibly be motorized with the old motors of the Z scope for fine adjustment and autoguiding.

The meeting was adjourned at 8:25PM.

Respectfully Submitted,
Agnes Keszler, Secretary

Membership Report

Since the last Report we received four new membership applications and would like to welcome Erin Cochenet and Family, Carl Stevens, and Mike & Joan Wagner. One applications is pending. We now have 123 active members.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Observatory Director's Report (continued from page 2)

Tamas and Agnes volunteered to keep the scope at their home, where members can be shown how to use it when picking it up and the scope can be inspected when returned. The telescope saw its first use at the Yerkes star party on July 30th, where it worked beautifully. Hopefully, our members will make use of this very portable telescope under dark skies away from the lights of the Milwaukee metro area.

The Sky Shed POD arrived on Thursday, July 28th to Vector Industries and was delivered to the Observatory the next day. A work party was held on Saturday July 30th where the 8 ft. dome was completely assembled that day. Thank you to all who came out and helped. During the next few days the mount was installed and work on the electrical power outlets began. By next week the electrical work will be done and the two solar scopes will be installed and the mount polar aligned.

Tamas, Agnes, and Jeff have been working on the remodeling of the hallway in the Z-building, which is progressing nicely and looking great. Ceiling, walls and floor have been painted and trim molding has been added. With the installation of screens by myself on the Z-building's office window, it can now be opened at night to keep the office from getting too warm and uncomfortable.

To make getting into A-dome easier we will be keeping the trap door open all of the time, A-scope is the only telescope at the Observatory that you have to go through two locked doors to get to, and also the trap door is heavy and hard to open especially when carrying imaging equipment and a laptop computer.

Respectfully Submitted,
Paul Borchardt, Observatory Director

The New Meeting Format

During the August meeting the Board has decided to change the format of the Membership Meetings. Instead of inviting a guest speaker for each meeting we will also have presentations on the use of different MAS equipment. The program will also include a demonstration/hands on training on the use of that telescope.

This change seems necessary, since the Club acquired several new telescope and camera systems in the recent years that members might not be familiar with. We hope this will generate interest in using the Observatory's equipment.

Of course in case of a more sophisticated imaging systems one training session would not be enough. For those members who would like to became proficient other resources will be available including workshops and help from experienced members. Follow the Google Group posts or ask for help.

We will also continue to invite professional astronomers as guest speakers for our meetings. Any suggestions would be highly appreciated. If you know about an interesting presenter in the Milwaukee area please let us know.

In the Astronomical News

Venus-like Exoplanet might have Oxygen Atmosphere, but not Life

The distant planet GJ 1132b intrigued astronomers when it was discovered last year. Located just 39 light-years from Earth, it might have an atmosphere despite being baked to a temperature of around 450 degrees Fahrenheit. But would that atmosphere be thick and soupy or thin and wispy? New research suggests the latter is much more likely.

Harvard astronomer Laura Schaefer (Harvard-Smithsonian Center for Astrophysics, or CfA) and her colleagues examined the question of what would happen to GJ 1132b over time if it began with a steamy, water-rich atmosphere.

This artist's conception shows the rocky exoplanet GJ 1132b, located 39 light-years from Earth. Credit: Dana Berry / Skyworks Digital / CfA

Orbiting so close to its star, at a distance of just 1.4 million miles, the planet is flooded with ultraviolet or UV light. UV light breaks apart water molecules into hydrogen and oxygen, both of which then can be lost into space. However, since hydrogen is lighter it escapes more readily, while oxygen lingers behind.

"On cooler planets, oxygen could be a sign of alien life and habitability. But on a hot planet like GJ 1132b, it's a sign of the exact opposite - a planet that's being baked and sterilized," said Schaefer.

Since water vapor is a greenhouse gas, the planet would have a strong greenhouse effect, amplifying the star's already intense heat. As a result, its surface could stay molten for millions of years.

A "magma ocean" would interact with the atmosphere, absorbing some of the oxygen, but how much? Only about one-tenth, according to the model created by Schaefer and her colleagues. Most of the remaining 90 percent of leftover oxygen streams off into space, however some might linger.

"This planet might be the first time we detect oxygen on a rocky planet outside the solar system," said co-author Robin Wordsworth (Harvard Paulson S chool of Engineering and Applied Sciences).

If any oxygen does still cling to GJ 1132b, next-generation telescopes like the Giant Magellan Telescope and James Webb Space Telescope may be able to detect and analyze it.

The magma ocean-atmosphere model could help scientists solve the puzzle of how Venus evolved over time. Venus probably began with Earthlike amounts of water, which would have been broken apart by sunlight. Yet it shows few signs of lingering oxygen. The missing oxygen problem continues to baffle astronomers. Schaefer predicts that their model also will provide insights into other, similar exoplanets. For example, the system TRAPPIST-1 contains three planets that may lie in the habitable zone. Since they are cooler than GJ 1132b, they have a better chance of retaining an atmosphere.

This work has been accepted for publication in The Astrophysical Journal and is available online. The journal paper is authored by Laura Schaefer , Robin Wordsworth, Zachory Berta-Thompson (University of Colorado, Boulder), and Dimitar Sasselov (CfA).

Headquartered in Cambridge, Mass., the Harvard-Smithsonian Center for Astrophysics (CfA) is a joint collaboration between the Smithsonian Astrophysical Observatory and the Harvard College Observatory. CfA scientists, organized into six research divisions, study the origin, evolution and ultimate fate of the universe.

Harvard Smithsonian Center for Astrophysics

Adopt a Telescope Program - Signup Sheet

	Adopter	Scope	Location
1	Sue Timlin/John Hammetter	18" F/4.5 Obsession	Wiesen Observatory
2	Steve Volp	12.5" F/7.4 Buckstaff	B Dome
3	Robert Burgess	12.5" F/9 Halbach	A Dome (Armfield)
4	Mike Smiley	18" F/4.5 Obsession	Albrecht Observatory
5	Jeff Kraehnke	14" F/7.4 G-scope	Z Dome
6	Lee Keith/Tom Kraus	12" F/10 LX200 EMC	Tangney Observatory
7	Herman Restrepo/Matt Mattioli	8" F/11 Celestron EdgeHD	Ray Zit Observatory
8	Tamas Kriska	14" F/1.9 F-scope	Jim Toeller Observatory
9	Paul Borchardt	Solar scope	SkyShed POD

At Your Service

Officers / Staff

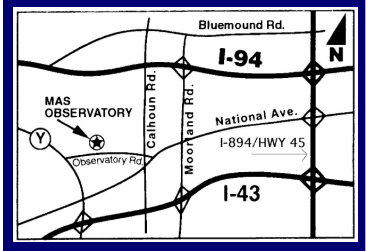
President	Tamas Kriska	414-581-3623
Vice President	Sue Timlin	414-460-4886
Treasurer	Sue Timlin	414-460-4886
Secretary	Agnes Keszler	414-581-7031
Observatory Director	Paul Borchardt	262-781-0169
Asst. Observatory Director	Jeff Kraehnke	414-333-4656
Newsletter Editor	Tamas Kriska	414-581-3623
Webmaster	Gene Hanson	262-269-9576

Board of Directors

Paul Borchardt	262-781-0169
Robert Burgess	920-559-7472
Steve Volp	414-751-8334
John Hammetter	414-519-1958
Lee Keith	414-425-2331
Frank Kenney	414-510-3507
Jeff Kraehnke	414-333-4656
Agnes Keszler	414-581-7031
Tamas Kriska	414-581-3623
Sue Timlin	414-460-4886
Vacant	

September/October Keyholders

9/17	Scott Berg	262-893-7268
9/24	Paul Borchardt	262-781-0169
10/1	Tamas Kriska	414-581-3623
10/8	Brian Ganiere	414-961-8745
10/15	Henry Gerner	414-774-9194



MAS Observatory

18850 Observatory Rd
New Berlin, WI 53146

www.milwaukeeastro.org