



October Meetings

The Milwaukee Astronomical Society is currently holding the Monthly Meetings on the third Monday of each month. The next one is scheduled for Monday, October 19th.

The **Board Meeting** starts at 7 PM, and is open to every MAS member who is interested in organizational and Observatory related issues.

The Board meeting will be followed by the Membership Meeting starting at 8 PM. MAS member Randy Culp will give a presentation about planet Mars that is currently approaching the opposition. Some of the questions that will be addressed during the talk: Why this is an amazing time to See Mars; What there is to see on Mars; How much can you see in your telescope; What it's like on Mars; and Plans for a manned Mars base by 2025!

The **Imaging Focus Group** will meet on Wednesday, October 14th at 7 PM through Zoom videoconference. Jeff Kraehnke will lead the discussion on the Autoguiding.

The **First Wednesday** How to Meeting will be held through Zoom videoconference on October 7th, from 7:30 PM. This is an informal meeting to discuss technical aspects of astronomy, however, any astronomy-related topic can be brought up. New members are especially encouraged to attend this meeting.

Invitations will be sent out prior to meetings.

The MAS Google Group is as active as ever. Learn about the astronomical news, follow equipment related discussions, or just check out the latest images taken by fellow Club members.



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Membership Renewal

The Membership renewal period has started. There are several renewal methods you can choose from. If you prefer to do it online just follow this link:

<http://milwaukeeastro.org/membership/masRenewal.asp>

The renewal form can also be printed out and sent back along with a check made payable to The Milwaukee Astronomical Society.

If you are wondering whether you need to renew your MAS membership, simply look for your name on this list:

<http://milwaukeeastro.org/membership/membersRenewed.asp>

If your name is there, your membership is active through 2021.

Thank you for being a member of the Milwaukee Astronomical Society.

Observatory Director Report

Two problems at the Observatory has been resolved this last month. The broken cables on "B"- Dome have been replaced and the slit has been moving smoothly. The septic tank was found, dug up, and a new riser was installed. The system passed inspection and will now be easy to find in the future. Thank you, Mike Wagner, for taking this project on and doing a great job!

Projects in process are the installation of a new entrance gate, and the construction of a new box to cover the outside faucet.

There is a power loss to the Solar Scope, the Tangney Scope, and "F"-Scope. The problem is thought to be underground and is being investigated. In the meantime, extension cords are being used to power the scope.

A powered dew shield was purchased for the 10" Meade in the Z2 roll off shed.

On Saturday 9/19, a work party burned everything cut out at the Observatory for the last two years. There was a lot of limbs and branches to feed into the fire which burned all day.

Respectfully Submitted,
Paul Borchardt, Observatory Director

Treasurer's Report

\$9,407.04	Starting Balance as of 08/08/2020
	Expenditures
\$14.77	PayPal fees
\$720.32	Gate, step & railing
\$2,490.00	Front garage roof
\$449.50	Septic tank
\$1523.51	A and B-Dome repair
\$133.55	Other expenses
\$69.32	WE Energies
\$5,400.97	TOTAL Expenditures
	Revenue
\$1,038.97	Private donations
\$586.00	Membership dues
\$3.00	Grants
\$1,895.00	Donated equipment sale
\$409.00	TOTAL Revenue
\$7,529.04	Ending Balance as of 09/20/2020

Respectfully Submitted,
Sue Timlin, Treasurer

Minutes

Due to the COVID-19 it was held via Zoom video-conference on September 21st. It was called to order at 7:01PM by Tamas Kriska President.

Minutes, and Treasurer's Report electronically submitted ahead of the meeting were approved.

Observatory Director's Report electronically submitted ahead of the meeting was amended and approved. Amendment: The front garage was re-roofed. Railing was installed at the Quonset.

Membership Committee Report was electronically ahead of the meeting. Membership applications of Scott Johnson & family, Michael Coey, Randy Levine & family, Jerome Williams & family, Scott Jackson & family, Kathleen Hill & family, Raju Kamal & family, Larry Grabsky & family, Eric Myers & family, Carlton Cowie & family, and Gary Veal & family were approved.

Old Business – *Garage re-roofing*: The project is finished. *Entrance gate*: The installation has started.—*A-Dome painting*: A quote of \$4,430.00 from K2 was accepted via online discussion and voting.—*Restroom accessibility*: The Observatory Committee proposed to switch the lock on Quonset back door to a keypad. Members who want access should see the Observatory Director. At least 1 year active membership and a valid reason are required. The proposal was approved, a motion was carried to allocate \$150 for the padlock.

New Business – *Acrylic display box*: Jeff suggested to display the Sputnik part replica and meteorite pieces in the Quonset. Motion was made and carried to allocate \$100 for a display box.

Program – Jack Roper's presentation on Lightning on Earth was postponed for technical reasons. Tamas Kriska gave a short talk on the nature of lightning, and how it occurs in other planets.

Respectfully Submitted,
Agnes Keszler, Secretary

Membership Report

Since the last Report we received 9 new applications. We welcome Kathleen Hill & Family, Raju Kamal & Family, Larry Grabsky & Family, Eric Myers & Family, Carlton Cowie & Family, Gary Veal & Family, William Gottemoller, Julien Rosso, and Julie Gottemoller & Family. The total number of active members is 192.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Maintenance

The old chain at the entrance is being replaced with a gate system. We started the installation by digging two 4 feet deep holes to accommodate a pair of poles that will hold the gates. Next step will be pouring concrete around the poles, followed by the actual installation of the gates.

Mice destroyed the power cables to Toeller and Tangney observatories. Mike Wagner troubleshooted the issue and then run new lines in underground PVC pipes. Once again, both observatories have power.

In a few days A- and Z-domes will be painted by K2 Painting. Before that a piece of torn metal sheet of the A-dome slit had to be replaced.



Maintenance

We have finally burnt the gigantic pile of trees and branches that accumulated over the past two years on the edge of East parking lot.



In the Astronomical News

'Grand Claims' of Life on Venus Lack Evidence, Skeptics Say

A team of researchers told the world that they had detected a molecule in the upper cloud layers of Venus typically only created by living creatures here on Earth. The blockbuster announcement of finding phosphine in the clouds of Venus made a major splash in the news. But pushback began appearing even as details of the results were coming to light. In the days since, scientists have had some time to articulate their criticisms, which fall into two main camps. On one side, there are those who question the detection itself and whether the team has definitely seen what they claim to have seen. And a second attack heavily scrutinizes the interpretation and whether or not life is a good conclusion to arrive at.

Even those who are skeptical believe the findings to be intriguing. Venus has a hot and hellish surface, but the idea that life might exist in its relatively balmy upper atmosphere has been around for a long time. Everyone understands that this is not the final word on the matter, which is likely to take years to fully sort out. "Obviously if it's correct, it's an extremely cool result and potentially has profound implications," John Carpenter, an observatory scientist at the Atacama Large Millimetre/submillimetre Array (ALMA) in Chile, told Live Science. "But grand claims demand grand evidence."

At the center of this debate is the molecule phosphine, is a nasty and poisonous gas for many creatures, including humans, but is produced by bacteria living in rotting sewage and swamps where oxygen is lacking, as well as in the intestines of some animals.

Using the James Clerk Maxwell Telescope in Hawaii and ALMA, astronomers looked for telltale dips in Venus' light that would indicate the presence of different chemicals, and noticed one associated with phosphine. The result is particularly perplexing because Venus' atmosphere is full of carbon dioxide and other oxygen-containing molecules, which should rip apart phosphine in no time. To have it present in any amount is bewildering. But did the research team really see phosphine? The observations contain a good amount of noise, which might simply be mimicking a phos-

phine signal, suggested Carpenter.

Michael Way, a physical scientist at NASA's Goddard Institute for Space Studies in New York City, agreed. "More lines are needed to verify that it is this particular molecule," Way told Live Science in an email. "As this point it's not 100% clear exactly what they have measured." In particular, Way pointed out that there is a signature associated with sulfur dioxide, at nearly the same frequency of light. Sulfur dioxide is the third most abundant gas in Venus' atmosphere, so its presence might account for the phosphine finding,



A composite image of Venus using data from Nasa's Magellan spacecraft and Pioneer Venus Orbiter. Credit: NASA/Reuters

David Catling, an astrobiologist at the University of Washington in Seattle, told Live Science in an email.

The team who made the original phosphine finding is interested in doing follow-up observations to verify their results. And independent investigators with NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) telescope, the Very Large Telescope in Chile, and the European Space Agency's BepiColombo spacecraft, which will soon fly past Venus on its way to Mercury, are all planning their own phosphine searches.

But even if phosphine exists on our sister world, there are many reasons to doubt that life is making it. Here on Earth, phosphine is associated with living organisms, but Venus is quite literally an alien planet, and scientists don't yet fully understand its many complex details. Moreover, the idea of Earth-like organisms, even microbial ones, living in Venus' hellish, toxic atmosphere is a tough one for many scientists. "The cloud droplets are concentrated sulfuric acid," Catling said.

The one thing that's certain is that Venus will be receiving a great deal more attention in the near future. For his part, Cronin believes it's possible life does exist in Venus' clouds, but that it is liable to have chemistry quite unlike terrestrial organisms. A molecule like phosphine could be a "bio-hint," he said, but would need additional information to definitively prove whether or not it's being created by life.

Adam Mann, livescience.com

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	Russ Blankenburg	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/Colin Boynton	10" F/6.3 LX200	Ray Zit Observatory
8	Tamas Kriska	Stellarvue SVQ 100 F/5.8	Jim Toeller Observatory
9	Paul Borchardt	Solar scope	SkyShed POD



MAS Observatory

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At Your Service

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Steve Volp	414-751-8334
Mike Wagner	262-547-3321

October Keyholders

10/03	Brian Ganiere	414-961-8745
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10/17	Lee Keith	414-425-2331
10/24	Jeff Kraehnke	414-333-4656
10/31	Tamas Kriska	414-581-3623