MILWAUKEE ASTRONOMICAL SOCIETY

FOCAL POINT

February, 2018

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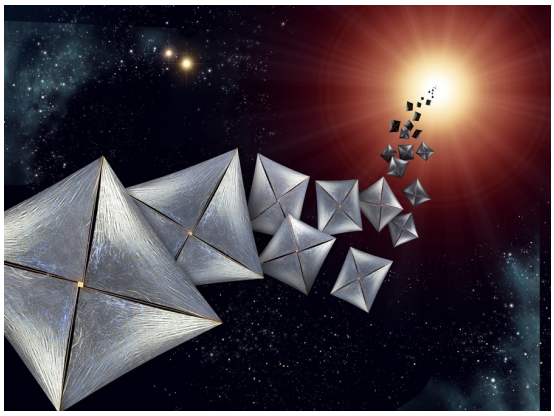
Next Meeting on March 16th



The Milwaukee Astronomical Society will hold its next General Meeting on Friday, March 16th, at 8 PM at the Observatory.

Angela Van Sistine and **Casey McGrath** from the Center for Gravitation, Cosmology, and Astrophysics will give a presentation entitled **Alien Messages and Earth's Space Invasion of the Proxima Star System: The Breakthrough Initiatives**.

The Breakthrough Initiatives, a privately funded program, hopes to pave the way for human expansion outside of our own solar system! The Breakthrough Initiatives will: Listen for extraterrestrial life. Prepare a message from humanity if contact is made. Actively search the known extrasolar planets nearest to ours for signs of life. And finally, prepare a fleet of nanocrafts to leave our solar system and become the first human-made objects to directly visit another star system. Sound far-fetched and sci-fi? Come join us to learn how this is currently becoming a reality...

The meeting will be preceded by a Board Meeting from 7 PM that is open for everybody who interested in organizational and Observatory related issues.

Public Night Speakers Needed

Our open houses are now listed on the website, and we are looking for five speakers to do presentations on following days:

May 11 Friday, 7:00-10:00 PM
June 23 Saturday, 4:00-8:00 PM (The Sun)
August 17 Friday, 8:00-11:00 PM
September 7 Friday, 7:00-10:00 PM
October 12 Friday, 7:00-10:00 PM

ANY member may do a presentation – it does not matter if you've been with MAS for many years or for just a few months. You also do not need to be an officer or on the Board of Directors. You just need to be willing to impart your knowledge of astronomy in your chosen area (topic) and enjoy telling our visitors about our hobby. As a speaker, your responsibility is to choose your topic and prepare your own presentation; then arrive about half an hour early on your night to set up.

Please consider volunteering. If you made up your mind or have a questions, please contact Sue Timlin at 414-460-4886 or by e-mail potatosue.mas@gmail.com. If volunteering, please let her know the date and topic you have chosen.

Observatory Report

A hold down system has been installed to secure the Solar Dome. Images through the Lunt lacked detail. It was found that a glass filter in the diagonal had failed, Lunt mailed a new one at no cost. The solar scopes are now both ready for use. With a budget of $280, seven eyepieces were purchased to fill out the sets on several of the scopes at the Observatory. Five of the eyepieces are Orion Expanse models which have a long eye relief for easier viewing, they were purchased new from Orion for $188. The other two eyepieces are Orion Edge-on Planetary models that were picked up used in new condition for $95, a saving of $105 over the cost new. These two eyepieces will be used on A-scope for planetary observation. Total spent was $283.

The last First Wednesday meeting was and several future First Wednesday meetings will focus on how to do planetary imaging due to the upcoming apparitions of Jupiter, Saturn, and Mars. January's meeting was very well attended with a lot of interest in planetary imaging. A-scope should be well used this season.

There were several old CCD imagers,10" mirror, and an eyepiece focuser sold in the last month for a total of $720. Also, the old Sky Shed dome has been tentatively sold for $200.

Respectfully Submitted,
Paul Borchardt, Observatory Director

Treasurer's Report

$6,382.81	***Starting Balance as of 1/17/2018***
	Expenditures
$7.05	PayPal fees
$100.00	Stipend
$293.00	Annual expenses
$471.47	Observatory expenses
$144.68	WE Energies
$0.00	Water/sewer
$1036.74	TOTAL Expenditures
	Revenue
$26.01	Donations
$273.00	Membership dues
$390.00	Annual revenue
$689.01	TOTAL Revenue
$6,035.08	***Ending Balance as of 2/14/2018***

Respectfully Submitted,
Sue Timlin, Treasurer

Meeting Minutes

The meeting was held on February 16th at the MAS Observatory, New Berlin. Was called to order at 7:00 PM by Tamas Kriska President.

Minutes, Treasurer's, Observatory Director's, and **Membership Committee Reports** electronically submitted ahead of the meeting were approved. Membership application of Tigran Grigoryev, Yue Shen, Jim Bakic, Joe Dailey, and Jimi Flannery were approved.

Old Business – Solar Observatory: Paul made and installed two hold downs. A damaged green filter was replaced with a new one. It was decided to leave the scope in the dome even in cold winters. The new eyepieces were purchased. Paul made a cover for the fan hole. Temperature in the Quonset will be maintained at 40 °F. Flat panel for G scope was purchased and assembled. Suggestions for speakers by the Open House Committee were discussed by the Board. Speakers are wanted. The Board accepted Frank Kenney's suggestion to wait a couple years before naming the Quonset.

New Business – Motion was made and carried to allocate $350 to purchase a motorized focuser to be installed on B scope. Jason Doyle graciously donated eight new office chairs to replace the old ones in the control room in Z-building.

Program – Dan Flynn from Artz Camera gave a talk entitled Astrophotography Overview.

The meeting was adjourned at 9:10 PM.

Respectfully Submitted
Agnes Keszler, Secretary

Membership Report

Since the last Report we received one renewal and two new membership applications and would like to welcome Joe Dailey, and Jimi Flannery. There is one pending application. We now have 149 active members.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Observatory News

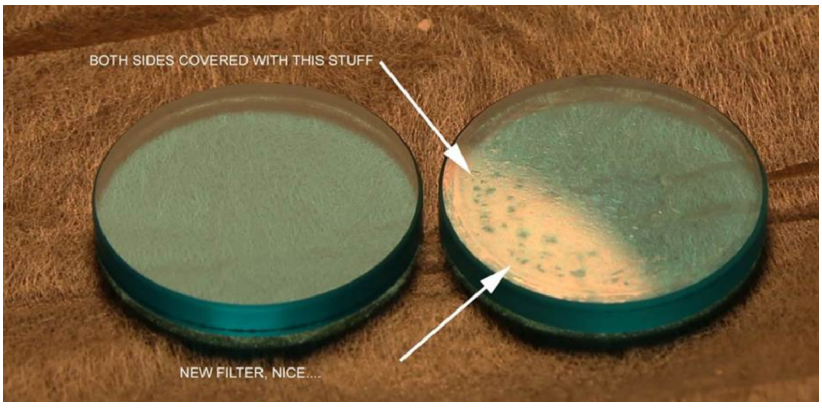
New EL Flat Box

For a long time we did not have a good way to take so-called flat frames. A flat frame is a normally exposed image with the entire field of view lit as uniformly as possible. Flats are used in pre-processing to remove smudges on the sensor and to eliminate vignetting. This flat box was built from a 15" wide electroluminescent (EL) panel combined with foam core board and paper clips. This device produces an extremely evenly illuminated surface. It can be used on any telescopes except the HyperStar equipped F-scope.

Solar Dome Hold Down Mechanism

The original solar dome was replaced with NexDome but it lacked a good hold down mechanism. Paul Borchardt built and installed one. This system will ensure that the dome cannot be lifted off the wall.

Solar Scope Green Filter Replacement



It has been noticed that the image quality in the Lunt solar scope has deteriorated. With a call to Lunt it was found that a green glass filter in the diagonal had failed. Lunt mailed a new filter and the bad was removed and replace it with the new one. We need to watch closely how the new filter behaves, since it is known to be sensitive to outdoor conditions.

Observatory News

New Office Chair in the Control Room

When we remodeled the Control Room, almost two years ago, we replaced all the old office chairs. However, because of the limited budget we only could afford to buy six inexpensive ones. Those served us well, but quickly started showing signs of wear and tear. Jason Doyle came to rescue as his company was getting rid of their office chairs. Jason gave eight of them to the Club at no coast. All chairs are in very decent "like new" condition. Since these are much more sturdier and higher quality chairs than the old ones we expect them to last a long time.

So if you or your company is replacing equipment that is still in excellent condition please consider donating it to the Club. Items might include computers (desktop or laptop), big flat screen monitors, office furniture. You may want to contact any Officer in advance to discuss if the Club needs that particular item. Thank you.

In the Astronomical News

Amateur Astronomer Witnesses Something Scientists Have Been Waiting Decades For

Victor Buso is a locksmith. He spends his days fiddling with locks and keys, and in his spare time he stares into the heavens in the observatory he built on the top floor of his own home. He's devoted an incredible amount of time and money to his personal passion of skywatching, and now he's the first person on the planet to witness something that scientists have been hoping to see for decades: the birth of a supernova.

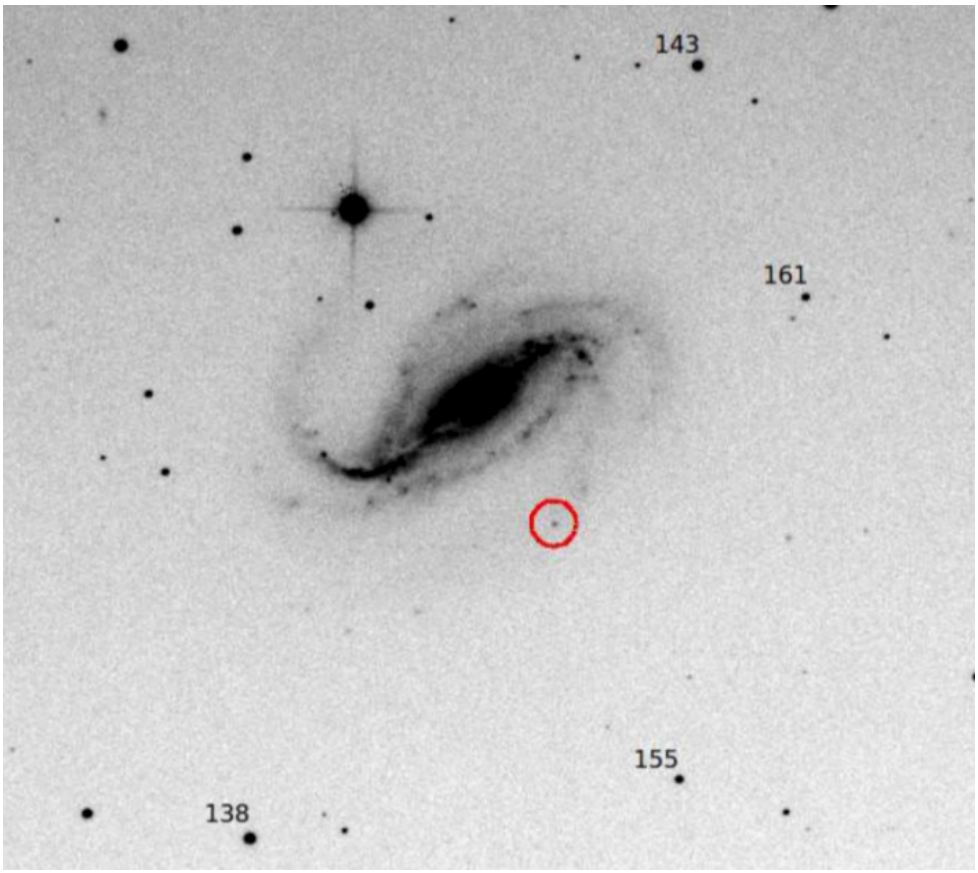


Image of SN 2016gkg in NGC613. The image is a combination of the final 21-image series obtained at discovery. Only the relevant region is shown, containing the supernova (red circle), its host and the comparison stars for photometry (indicated with numbers). Source: M C Bersten et al., Nature. Image obtained by V.B.

Using the high-powered telescope mounted above his home, Buso recorded the bizarre behavior of a distant star. The far-off star let out a massive purge of energy from its core just moments before it exploded, confirming long-held beliefs of the birth of supernovas and landing his Buso's name in the history books.

Buso, who inherited his love of astronomy from his parents, witnessed the incredible sight after aiming a newly-acquired telescope-mounted camera at the distant galaxy NGC-613. The galaxy sits some 65 million light-years from Earth, meaning that everything we can see from it is as it was 65 million years ago. It just so happened that Buso's timing was perfect, because he was able to spot a tiny bright speck that wasn't there previously, and it was getting brighter.

He recorded the event and, after seeing that the tiny blip had eventually resulted in a supernova, he knew it was an extremely important sighting. The odds of stumbling upon a pre-supernova event such at this is something like 1 in 10 million, according to astrophysicist Melina Bersten, and it's never been recorded before in the history of astronomy.

Soon, other astronomers began to record their own observations and, with the help of Buso's incredibly early sighting, were able to determine what kind of star had birthed the supernova. They believe it was a supergiant star roughly 20 times the mass of our own sun, and the researchers were able to create computer models to simulate how the entire thing unfolded. The research was published this week in *Nature*.

by Mike Wehner, BRG.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/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

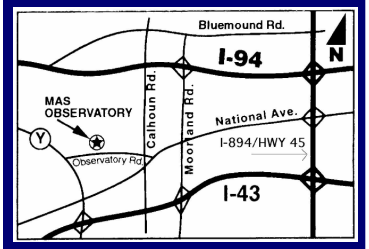
At Your Service

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

Scott Berg	262-893-7268
Russ Blankenburg	262-938-0752
Clark Brizendine	414-305-2605
Robert Burgess	920-559-7472
Jason Doyle	414-678-9110
John Hammetter	414-519-1958
Lee Keith	414-425-2331
Frank Kenney	414-510-3507
Jeff Kraehnke	414-333-4656
Sue Timlin	414-460-4886
Steve Volp	414-751-8334



MAS Observatory

18850 Observatory Rd
New Berlin, WI 53146

www.milwaukeeastro.org

March Keyholders

03/03	Lee Keith	414-425-2331
03/10	Jeff Kraehnke	414-333-4656
03/17	Tamas Kriska	414-581-3623
03/24	Herman Restrepo	414-702-2842
03/31	Steve Volp	414-751-8334