February, 2022

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March Meetings

The next **Membership Meeting** will be held on March 21st, 2022 from 8 PM via Zoom videoconference. MAS member Lee Keith will give a presentation on How to choose a telescope.

As always, the **Board Meeting** will take place right before the membership meeting, starting at 7 PM, and will be open to every MAS member who is interested in organizational and Observatory related issues.

The **First Wednesday meeting** will be held in person at the Observatory on March 2nd from 7:30. New members are especially encouraged to attend this meeting. It is a chance to gain hands-on experience, receive tips on how to get started and/or get more involved in the Club's activities.

The **Astrophotography Interest Group** will meet on Wednesday, March 9th at 7 PM trough Zoom videoconference.

Invitations will be sent out prior to Zoom 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.

Astronomical Events of the Month

March 1: Mercury is one of the more difficult planets to see. This morning though, about a half hour before sunrise, look for the zero-magnitude planet very close to the east-southeast horizon, 22° to Venus' lower left. Binoculars may be required to spot Mercury, especially from northern states.

March 2: Take advantage of the new moon to check out the night sky.

March 13: Daylight Saving Time Returns. Today the Sun will set an hour later, not because of anything astronomical but because of us turning the clocks back an hour.

March 18: March full moon was known by early Native American tribes as the Worm Moon because this was the time of year when the ground would begin to soften and the earthworms would reappear. This moon has also been known as the Crow Moon, the Crust Moon, the Sap Moon, and the Lenten Moon.

March 16: Venus and Mars. Venus is in conjunction with Mars this morning. The eerie, low glimmering of Venus is a harbinger of daybreak, which begins less than an hour after it first peeks up above the horizon. Mars on the other hand appears only 1/175 as bright. You can find it sitting about 4° to the lower right of Venus.

March 20: Spring (vernal) Equinox. The Sun will shine directly on the equator and there will be nearly equal amounts of day and night throughout the world. This is also the first day of spring in the Northern Hemisphere and the first day of fall (autumnal equinox) in the Southern Hemisphere.

Late March: Trio of planets are visible. Mars, Saturn and Venus will appear extremely close before sunrise during the last two weeks of March. The trio will be so close that they will be in the same field of view of some telescopes and binoculars.

Observatory Director Report

Matt Ryno submitted a request for an Observatory key last month. Taking into consideration Matt's involvement at the Observatory, knowledge of the equipment, enthusiasm to participate in in the Saturday member's night, and his familiarity with other members, I found it to be an easy decision to grant Matt a key. Matt will be in the keyholder rotation starting in July and is willing to take an evening where the scheduled keyholder is unable to.

I asked Lee Keith if he would be willing to take the position as another assistant Observatory Director along with Russ Blankenburg. Lee gracefully accepted the position. I appreciate all the help I receive from both.

I found during the last First Wednesday meeting that two of the club's cameras are missing from the control room. One is the DMK 51 CCD camera used on the solar scope and a Canon T3i DLSR. The box and the camera are missing for the DMK 51 and The Canon DLSR just the empty storage box is left. If anyone know about these two items, please let me know.

Respectfully Submitted,
Paul Borchardt, Observatory Director

Treasurer's Report

$10,909.65	***Starting Balance as of 01/16/2022***
	Expenditures
$5.97	PayPal fees
$199.81	WE Energies
$205.78	TOTAL Expenditures
	Revenue
$4.00	Private Donations
$248.00	Membership dues
$9.00	Grants
$261.00	TOTAL Revenue
$11,454.38	***Ending Balance as of 02/19/2022***

Respectfully Submitted,
Sue Timlin, Treasurer

Membership Report

Since the last Report we received two new membership applications. We welcome Nick Sharafinski, James Sprague. The total number of active members is 192.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Minutes

The last Board Meeting was held via Zoom videoconference on February 21st. Meeting was called to order at 7:02 PM by Tamas Kriska President.

Minutes, **Treasurer's** and **Observatory Director's Reports** electronically submitted ahead of the meeting were approved. **Membership Committee Report** of was submitted electronically ahead of the meeting. Membership application of Scott Simon & family, Josh Sanders & family, Scott Dawley & family, Nick Sharafinski, and James Sprague were approved. **Website report** was electronically submitted ahead of the meeting. The SSL certification is on the list.

Old Business – *Display box for the sputnik replica*: The replica is currently displayed in the Quonset. Lisa Swaney, director of the Horwitz-DeRemer Planetarium, Waukesha was contacted about the future temporary display. QR code was created. *MAS event calendar:* The one-page e-calendar was created and is available on the website. *Old equipment sell*: Will be starting next month. Payment will go directly to the MAS PayPal account.

New Business – *Public Night schedule*: The Open House Committee proposed, and the Board discussed the 2022 Open House schedule and determined the dates of 5 nights from June thru October.

Announcement – The next meeting will be on March 21st, 2022, via Zoom videoconference.

Program – MAS member Dennis Roscoe gave a presentation entitled: Webb status update.

Respectfully Submitted,
Agnes Keszler, Secretary

Website Report

After countless months of wrestling with various problems that cropped up on our proposed new website host provider, SmarterASP, I am ready to declare victory and the latest move that happened a few days after our last meeting seems to be holding. Consequently, I'm confident that I can move forward and have started the process of expanding the website. As I reported last August, here is a comparison of the old and new host providers:

Item	DiscountASP	SmarterASP
Cost	$10/month	$5/month
Server Space	1 GB	Unlimited
Plus ½ GB storage	$5/mo.	N/A
Bandwidth	81920MB	Unlimited
Email	500MB	Unlimited
Plus 100MB email	$1/mo.	N/A

Respectfully Submitted,
Gene Hanson, Webmaster

Website News

MAS Website Moves to a New Host

Back in August the website committee proposed to the Board and got approval to move our site from DiscountASP (which we've been with for the last 16 years and had given us great service) to SmarterASP. I had tested this provider by moving several other of my personal sites and ran into almost no difficulty.

What We're Gaining

There are three major things we were looking to get by moving from DiscountASP to SmarterASP: (1) Less expensive yearly fees (half of what we were paying), and (2) virtually unlimited web space for content (we had just a 1 gigabyte limit), and (3) unlimited monthly bandwidth. We were also getting something new from the supplied email system: the ability to send to *any* domain. Previously domains such as AOL and MSN were totally blocked. This is significant because we can now send out auto replies to messages to let users know we acknowledge receipt.

Our storage limit problem is partially of my own doing and partially because the club has a lot of prolific imagers and as we are now approaching our 90th birthday, we have a very rich history.

Imaging – The Showcase

When I took over the website we had less than 50 images in the Showcase. Today we have about 1200! But in order for those images to fit onto the site meant considerable downsizing of the images and adding a lot of compression. This always results in a loss of resolution. I also went with no thumbnails because they would take up considerable space. If we were forced to stay with our current provider I would have been forced to delete hundreds of images.

MAS History

Over the last 8 years I've gained possession of a lot of club historical documents and pictures which for too many years no one outside the club historian had any access. This coming September the club will mark its 90th year! Though I don't intend to have all the photos and documents on the website (it's over 16 gigabytes), my plan is to have them in less than full resolution which should allow for the vast majority to be accessed.

Spam Trouble

We have a variety of forms on the website in two categories: (1) general contact us forms, and (2) application/ renewal forms. The application forms in particular are extremely important because we can now get an application and receive immediate payment via PayPal / credit card. All of these forms result in an email that is sent to an internal email distribution list. But starting around the same time we were moving to the new host there was a considerable spike in spam which resulted in the email providers instituting increasingly tougher draconian measures. It is one thing for our emails to end up in a spam folder because at least we can get them, but quite another if they are suppressed altogether.

To be sure no messages get dropped, all of them first get written to an internal file before they are sent. This way if any problem develops we have the messages (and especially the applications) can get the info and respond accordingly.

If you have any questions about the website you may always contact the webmaster. You can find that form on the Contact Us page.

Gene Hanson, Webmaster

MAS Membership Even Schedule

We are pleased to announce that the MAS has introduced an one page on-line calendar which contains all astronomical– and Club-related information of the year. The calendar is duly updated, and available on the MAS website:
http://milwaukeeastro.org/members.asp?pMon=3&pYear=2022#calendar.

2022
Milwaukee Astronomical Society

MEMBER Event Schedule

January		
~~5~~	~~Wednesday - Beginner's Night~~	~~7:30 PM~~
~~12~~	~~Wednesday - Imaging Interest Group~~	~~7:00 PM~~
~~17~~	~~Monday - Board Meeting~~	~~7:00 PM~~
~~17~~	~~Monday - General Membership Meeting~~	~~8:00 PM~~
February		
~~2~~	~~Wednesday - Beginner's Night~~	~~7:30 PM~~
~~9~~	~~Wednesday - Imaging Interest Group~~	~~7:00 PM~~
21	Monday - Board Meeting	7:00 PM
21	Monday - General Membership Meeting	8:00 PM
March		
2	Wednesday - Beginner's Night	7:30 PM
9	Wednesday - Imaging Interest Group	7:00 PM
21	Monday - Board Meeting	7:00 PM
21	Monday - General Membership Meeting	8:00 PM
April		
6	Wednesday - Beginner's Night	7:30 PM
13	Wednesday - Imaging Interest Group	7:00 PM
18	Monday - Board Meeting	7:00 PM
18	Monday - General Membership Meeting	8:00 PM
23	Dark Site Star Party - HBSP (Sunset 7:43pm)	8:00 PM
May		
4	Wednesday - Beginner's Night	7:30 PM
6	Friday - Public Night (Sunset 8:13pm)	8:00 PM
11	Wednesday - Imaging Interest Group	7:00 PM
16	Monday - Board Meeting	7:00 PM
16	Monday - MAS Election	8:00 PM
16	Monday - General Membership Meeting	8:15 PM
21	Dark Site Star Party - Ottawa (Sunset 8:14pm)	8:00 PM
June		
8	Wednesday - Imaging Interest Group	7:00 PM
20	Monday - Board Meeting	7:00 PM
20	Monday - General Membership Meeting	8:00 PM
23-26	WOW 2022 Campout LINK	ALL DAY

July		
13	Wednesday - Imaging Interest Group	7:00 PM
18	Monday - Board Meeting	7:00 PM
18	Monday - General Membership Meeting	8:00 PM
August		
3	Wednesday - Beginner's Night	7:30 PM
10	Wednesday - Imaging Interest Group	7:00 PM
13	Saturday - MAS Picnic	Noon
20	Dark Site Star Party - Ottawa (Sunset 7:47pm)	8:00 PM
22	Monday - Board Meeting	7:00 PM
22	Monday - General Membership Meeting	8:00 PM
26-28	Northwoods Starfest Star Party LINK	ALL DAY
September		
7	Wednesday - Beginner's Night	7:30 PM
14	Wednesday - Imaging Interest Group	7:00 PM
19	Monday - Board Meeting	7:00 PM
19	Monday - General Membership Meeting	8:00 PM
23	Friday - Public Night (Sunset 6:47pm)	6:45 PM
October		
5	Wednesday - Beginner's Night	7:30 PM
12	Wednesday - Imaging Interest Group	7:00 PM
15	Dark Site Star Party - HBSP (Sunset 6:09pm)	6:00 PM
24	Monday - Board Meeting	7:00 PM
24	Monday - General Membership Meeting	8:00 PM
28	Friday - Public Night (Sunset 5:49pm)	6:00 PM
November		
2	Wednesday - Beginner's Night	7:30 PM
9	Wednesday - Imaging Interest Group	7:00 PM
19	Dark Site Star Party - MAS (Sunset 4:25pm)	5:00 PM
21	Monday - Board Meeting	7:00 PM
21	Monday - General Membership Meeting	8:00 PM
December		
3	MAS Christmas Party	2:00 PM
7	Wednesday - Beginner's Night	7:30 PM
14	Wednesday - Imaging Interest Group	7:00 PM
31	Membership Renewal Deadline!	11:59 PM

*Every Saturday Night is "Member Night". Time is TBD and announced by the assigned host for that week

The events on this schedule are subject to change. Some dates may be cancelled due to poor weather or other factors. Visit the MAS Google Group for the latest information on the day of or check the online version of this schedule at www.milwaukeeastro.org

- Denotes an MAS Member special event

Any red text means unconfirmed date/event/time

- Denotes a public event

- Denotes a non-MAS event

In the Astronomical News

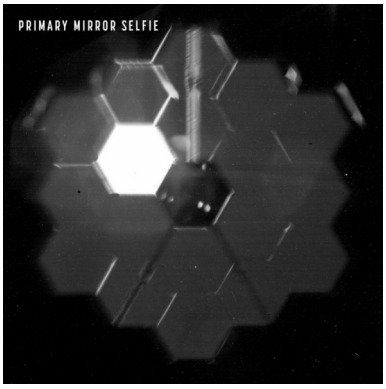
Behold the 1st images from NASA's James Webb Space Telescope!

The wait is finally over. The team behind NASA's James Webb Space Telescope released some of the first images from the much-anticipated observatory on February 11. The main photo, which doesn't even hint at the power Webb will bring to the universe once it's fully operational, shows a star called HD 84406 and is only a portion of the mosaic taken over 25 hours beginning on February 2, during the ongoing process to align the observatory's segmented mirror.

Image credit: NASA.

"The entire Webb team is ecstatic at how well the first steps of taking images and aligning the telescope are proceeding," Marcia Rieke, principal investigator of the instrument that Webb relies on for the alignment procedure and an astronomer at the University of Arizona, said in a NASA statement.

JWST is now 48 days out from its Christmas Day launch and in the midst of a commissioning process expected to last about six months. The telescope spent the first month unfolding from its launch configuration and trekking out nearly 1 million miles away from Earth. During the bulk of the remaining time, scientists are focusing on waking and calibrating the observatory's instruments and making the minute adjustments to the telescope's 18 golden mirror segments that are necessary for crisp, clear images of the deep universe. The process is going well, according to NASA.



A "selfie" shows the 18 segments of the primary mirror as seen from a specialized camera inside the NIRCam (Credit: NASA).

"This initial search covered an area about the size of the full moon because the segment dots could potentially have been that spread out on the sky," Marshall Perrin, the deputy telescope scientist for Webb and an astronomer at the Space Telescope Science Institute, said in the same statement. "Taking so much data right on the first day required all of Webb's science operations and data processing systems here on Earth working smoothly with the observatory in space right from the start. And we found light from all 18 segments very near the center early in that search! This is a great starting point for mirror alignment."

Still, the telescope has a long way to go, as today's image of HD 84406 shows. "The first images are going to be ugly," Jane Rigby, Webb operations project scientist, said on January 8 as the telescope began the process of unstowing its mirrors. "It is going to be blurry. We'll have 18 of these little images all over the sky." And the photograph does indeed show multiple views of HD 84406, the star that JWST scientists recently announced they had chosen to look at first. "Star light, star bright … the first star Webb will see is HD 84406, a sun-like star about 260 light-years away," NASA officials wrote on January 28.

HD 84406 is in the constellation Ursa Major, or Big Bear, but is not visible from Earth without a telescope. But it was a perfect early target for Webb because its brightness is steady and the observatory can always spot it, so launch or deployment delays wouldn't affect the plan. Oddly, JWST won't be able to observe HD 84406 later in its tenure; once the telescope is focused, this star will be too bright to look at. Previously, JWST personnel have said that the telescope will be seeing fairly sharply by late April.

Even as the JWST works to hone its vision, a second key process is taking place in the background as the observatory sends the remaining heat from its time on Earth out into space. Because Webb is tuned to study the universe in infrared light, which also registers as heat, the observatory must be incredibly cold to obtain accurate data. NASA scientists expect that the golden primary mirror will reach temperatures as low as minus 370 degrees Fahrenheit; instruments must be even colder, according to an agency statement.

All told, scientists are thrilled about the observatory's progress. “Launching Webb to space was of course an exciting event, but for scientists and optical engineers, this is a pinnacle moment, when light from a star is successfully making its way through the system down onto a detector," Michael McElwain, Webb observatory project scientist, NASA's Goddard Space Flight Center said in the statement.

Meghan Bartels, space.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	9-1/4" F/10 Celestron	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	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

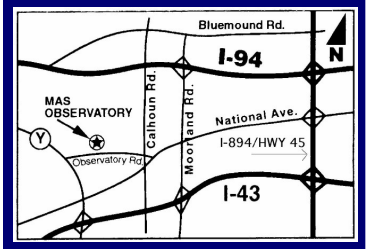
At Your Service

Officers / Staff

President	Tamas Kriska	414-581-3623
Vice President	Jeff Kraehnke	414-333-4656
Treasurer	Sue Timlin	414-460-4886
Secretary	Agnes Keszler	414-581-7031
Observatory Director	Paul Borchardt	262-993-8870
Asst. Observatory Director	Russ Blankenburg	262-938-0752
Asst. Observatory Director	Lee Keith	262-875-9103
Newsletter Editor	Tamas Kriska	414-581-3623
Webmaster	Gene Hanson	262-269-9576

Board of Directors

Jim Bakic	414-303-7765
Mike Bauer	262-894-1253
Jill Roberts	262-765-7092
Clark Brizendine	414-305-2605
Jason Doyle	414-678-9110
Dennis Roscoe	608-206-0909
Lee Keith	414-425-2331
Jim Schroeter	414-333-3679
Gabe Shaughnessy	262-893-4169
Steve Volp	414-751-8334
Mike Wagner	262-547-3321



MAS Observatory

18850 Observatory Rd
New Berlin, WI 53146

www.milwaukeeastro.org

March Keyholders

03/05	Brian Ganiere	414-961-8745
03/12	William Gottemoller	262-442-3686
03/19	Lee Keith	262-875-9103
03/26	Jeff Kraehnke	262-333-4656