

January, 2025

Website: www.midhudsonastro.org

President: Jack Chastain
Secretary: Jim Rockrohr
Neurolation Editor: Rick Vorse

Newsletter Editor: Rick Versace

Publicity: Tim Denman **Speakers:** Bart Henin

Directors: Alex Passas, Karl Loatman, Steve Dittmar, and Willie Yee

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groups.io Group: mhaa.groups.io

Vice President: Dave Sherman

Treasurer: Eric Myers

Membership Coordinator: TBD Webmaster: Steve Dittmar Outreach: Michael Goldstein

College Liaison: Dr. Amy Bartholomew

The next meeting is January 21st, 2025, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

# **January Speaker**

"December is club presentations and munchies. (Willie, Eric, and Jack, presenting so far)"

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Online link to the MHAA monthly Business Meeting Agenda:

http://mhaa.midhudsonastro.org/agenda

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# http://spy-hill.net/myers/astro/ltsp/

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Minutes of the monthly meeting of the Mid Hudson Astronomical Association, December 17, 2024

The meeting was called to order at 7:31 PM by President Jack Chastain in the Coykendall Auditorium at SUNY New Paltz, NY, and on the online application Zoom.

The minutes of the November meeting as published in the newsletter were unanimously approved.

Officer's Reports:

President: Jack Chastain was present.

- Elections tonight.
- o No technical committee meetings in the last month.

Vice President: Dave Sherman was present.

- Nothing to report.

Recording Secretary: Jim Rockrohr was present.

Nothing to report.

Publicity: Tim Denman was present.

- Nothing to report.

Newsletter: Rick Versace was not present.

- (No report).

Treasurer: Eric Myers was pre

O CBS wants an invoice. Is that OK for a 501c3?

Outreach: Mike Goldstein was present.

- Confirmed with **Olana** for a **sun party** for 12/21.
 - Stay tuned; may be too cloudy.
 - o 6 solar 'scopes, so far.
- Olana star party on 1/31/2025.

Speakers: Bart Henin was present.

- Scott Ewart booked for January (Update on Telescope Build).
- Mike Goldstein for February (Hudson Valley Dark Skies).
- Others booked to July.

Membership: Eric Myers (acting) was present

- Needs help.
- Need a way to handle emails to people who don't renew.

sent.

- See newsletter for latest numbers. Doing fine.
- Insurance up \$101 to \$900.
 - May shop around for 2026.
- \$200 donation from Wildflower Farms and \$800 donation from Auto Camp.

- Also expecting something from Innesfree.
- We are a 501c3 organization.

Solar System Ambassador: Willie Yee was not present.

No report.

Webmaster: Steve Dittmar was present

- Normal maintenance and updates.
- Updated to Website 3.0.
- Lending library will be next focus for enhancement.
 - o If you have any of the club's equipment SEND STEVE A GOOD PICTURE(S).

Old Business:

- Last club star party cancelled due to weather.
- Olana star party cancelled due to weather.
- Cairo school star party went well.
- Arlington High School star party went well.
- Saugerties High School star party cancelled due to weather.

New Business:

- There is an 18" Obsession telescope for sale. If interested, see Jack.
- Club elections:
 - Current list of candidates:
 - President Jack Chastain
 - Vice President Dave Sherman
 - Recording secretary Jim Rockrohr
 - Treasurer Eric Myers
 - Publicity Chairperson Tim Denman
 - Newsletter Editor Rick Versace
 - Directors (4) Alex Passas, Karl Loatman, Steve Dittmar, Willie Yee.
 - Candidates were all elected by the membership 19 for, 0 against.
 - O Unelected officers:
 - Membership Coordinator TBD
 - Webmaster Steve Dittmar
 - Speakers Bart Henin
 - Outreach Michael Goldstein
 - College Laison Dr. Amy Bartholomew

Events:

(Not discussed at this meeting.)

Reminders:

- Paid members get access to club equipment (telescopes, imagers, trackers) and club DVD/VHS video library.
 - 1. See the website or Jack for a list of available items.
- Paid members can also get access to the club Slack channels. Contact Jack or Eric for access.

Observing Reports:

(none mentioned)

The business meeting was adjourned at 7:56 PM. There were 8 Zoom windows open at the end of the business meeting and approximately 14 people were in the auditorium. The next meeting is January 21st, 2025, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

The member presentations that followed include:

Alex Passas – "Esie Eisinga Planetarium"

- Willie Yee, SSA "Bejing Ancient Astronomical Observatory"
- Eric Myers "Seestar Telescope"
- Michaela Donovan "Ole Romer's Speed of Light" and comments on using the Seestar S50.
- Joe Buff "Artemis Mission: Where is it Going and Why?"

Submitted by James Rockrohr, January 18, 2025.

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# MHAA Treasurer's Report for January 2025

As of 19 January 2025 we have \$5,752.24 in our bank account and \$2,933.29 in our PayPal account, with the Treasurer holding \$117.00 in petty cash. Our monthly payment for Google gSuite on the first of the month was again \$31.14, and we paid \$15.99 on the 15th for Zoom Pro for one month. This month we took in \$372.34 in dues for 13 renewing members and 2 new members. This month we also received \$200 for a star party at Wildflower Farms in October, and \$80 from t-shirt sales at the December meeting.

According to the by-laws, the Treasurer presents a budget for the year at the February business meeting so that it can be approved (perhaps with modifications) by members in attendance. In anticipation of this I want to remind everyone of the budget we approved last year:

2024-2025 Budget:

| 2024-2023 Buuget.           |         |
|-----------------------------|---------|
| Insurance:                  | \$850   |
| Park Permit:                | \$ 25   |
| Meetup.com:                 | \$250   |
| Google gSuite               | \$400   |
| Domain Registration:        | \$ 75   |
| Zoom:                       | \$200   |
| Speakers:                   | \$300   |
| Publicity:                  | \$300   |
| Equipment Repairs:          | \$300   |
| New Equipment:              | \$300   |
| Science Fair Prizes:        | \$150   |
|                             |         |
| TOTAL:                      | \$ 3150 |
|                             |         |
| 82 members × \$25           | \$ 2050 |
| Expected Event Donations    | \$ 700  |
| Expected Income – Expenses: | - \$400 |

In February I will propose two additions to the list of items shown here. The first is to approve the purchase of a ZWO Seestar S30 so that we can try it out and pass it around. (I have been using the S50 that we already purchased and I'm just about ready to pass it on to the next person, and in fact I've decided to buy one myself.) The second is to suggest funding a Library Lending program where we purchase a Seestar S50 and lend it to a local library, along with training for librarians, and support for them and their users. At the end of the agreed loan period the library could purchase their own S50, or not, while they would return the one they borrowed so that it could be loaned to another library. Any other suggestions for purchases or other items to add to the budget are welcomed.

As I mentioned in last month's report, I have been researching how we handle income from business or or private organizations for private star parties or other events. I have been reading IRS Publication 4221, Compliance Guide for

501(c)(3) Public Charities, but I have also found it useful to look at IRS Publication 557, Tax-Exempt Status for Your Organization. I have not answered all the outstanding questions that have been asked, but I can report on what I have found so far and try to answer questions during our business meeting.

Respectfully Submitted, Eric Myers Treasurer

### **MHAA Membership Report for January 2025**

As of 19 January 2025 the club has 101 members in good standing, of which 3 are students (one student membership expired at the end of the year). Since the last report there have been 13 membership renewals, and 2 new members have joined us. Our new website allows people to set up auto-renew "subscriptions" and currently 13 people have made use of that (not the same 13 who just renewed, but there is some overlap.).

We have 119 people subscribed to our email list at <a href="mailto:mhaa.groups.io">mhaa.groups.io</a>, which includes both current and expired members, along with other friends of the club who want to keep up on what we do but are not members. We have 2771 "members" on Meetup.com who follow us there to keep up on the events we announce there, primarily the monthly meetings and star parties, but also other public events that we post there. We have 1125 followers for our Facebook page (US only). We have 210 followers of our Instagram account (where we have not posted anything for many months). We don't have any followers on Bluesky, because we don't yet have an account on Bluesky, but maybe we should consider it?

Respectfully Submitted, Eric Myers Acting Membership Coordinator

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Webmaster Report

December '24 to January '25 has been a busy month for the website with both scheduled and unscheduled work.

- Website membership plugin upgraded to v3 -

The plugin responsible for membership management on the website released a major version update two months ago or so. After giving them time to settle any bugs in the field, I upgraded our website in late December. The update was drama free eventhough it made substantial changes to the underlying database tables.

The new level mostly provides administrative improvements in the back end that will be transparent to members. It improved visibility of subscriptions and subscription details, custom user fields configuration, simplified email template editing, and it lays groundwork for future checkout improvements on the road map for v4.

- Website "extracted" to a new server -

The MHAA website was having some resource shortage issues going into the new year, so I took action to migrate to a new server. While I was at it I took the larger step of extracting the site from the WordPress multisite environment where I originally created it so it would now be a standalone WordPress site. This was in-plan, but not intended to be done until later in the year. This is not trivial work, so I gave myself 12+ hrs to complete it. The outage began at 9pm on Wed 1/8 with a backup and went through about 1pm on Thurs 1/9.

It went fairly smooth, but I did have to resolve some issues that made the site unusable initially. Before reopening the site, I tested a variety of basic member and non-member activity on the site like submitting the Lake Taconic form, member account activity, etc.

This extraction sets us up for a simpler staging environment making it easier and safer to test new website plugins and design etc. It also makes it easier to migrate to different hosts/servers/owners in the future if needed.

- Members required to re-enable 2FA -

I was hoping users would not need to reestablish their account's two factor authentication (2FA), but the change from multisite to standalone complicated this. Technically, 2FA and user accounts were handled by the primary site in the old multisite configuration (steveinspace.com), which is why mail about lost passwords etc sometimes came from that domain instead of midhudsonastro.org. Now, everything will come from midhudsonastro.org, but I think that change made the 2FA generation on the new site incongruent with that on the old. In any event, after two hours of trying to make it work I gave up.

So, if you used 2FA previously you will need to re-estsblish 2FA.

To enable (or re-enable) 2FA:

- log in to your MHAA account
- click on your user name in the top right corner of the page
- click My Account
- click the Configure 2-Factor Authentication link on the left
- · follow the steps presented to you
- Outstanding issues -
 - · The event calendar is disabled

The main issues I ran into with the migration (and the only outstanding issue that I'm currently aware of) were related to plugins that were multisite "aware" and after the move suddenly "woke up" in a standalone environment, resulting in some level of misconfiguration. The only plugin I had to disable that wasn't resolved by simply reinstalling it or reactivating a license is the one that generates our event calendar from our Google calenders. I need to do a deeper clean on that before reinstalling and reconfiguring it. Until then, the calendar page is broken.

- Potential issues with subdomain forwards -

If you have any issue using our subdomain url forwards, ie xxxxxx.midhudsonastro.org, try clearing your browser cache. Our subdomain forwarding URLs include those to Meetup, YouTube, Facebook, Instagram, etc.

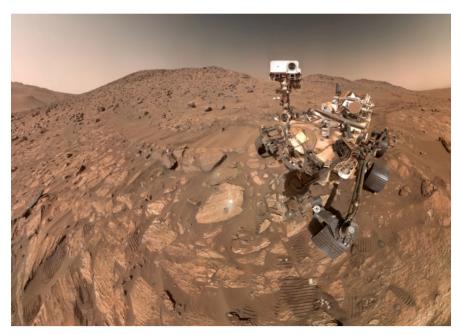
I noticed for some reason after the website server move that my primary computer browser had trouble resolving these forwards, but they work fine when I use an inPrivate/incognito/private window (which doesn't use any saved session or DNS host information etc). Clearing my primary browser's cache corrected the issue.

- Remaining work -
 - My free time has dried up again, but in time I will get back to resolving the calendar plugin issue
 - I am also looking into moving back to GoDaddy DNS because they appear to support free URL forwarding now, including https forwarding (which requires an SSL certificate for each subdomain forwarding URL). Previously I'd moved to ZoneEdit DNS because it was free and included free http forwarding while GoDaddy didn't. But we couldn't forward our subdomains with https because both services charged for that. I didn't have time to look into this during the site migration window. I may also have to plan it out a few weeks ahead of time because of intentional delays when disabling DNS security, which is enabled in our current DNS provider. Our domain registration will remain at ZoneEdit.
- Steve Dittmar MHAA Webmaster



This article is distributed by NASA's Night Sky Network (NSN).

The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit <u>nightsky.jpl.nasa.gov</u> to find local clubs, events, and more!



NASA's Perseverance Mars rover took this selfie, made up of 62 individual images, on July 23. A rock nicknamed "Cheyava Falls," which has features that may bear on the question of whether the Red Planet was long ago home to microscopic life, is to the left of the rover near the center of the image. Credit: NASA/JPL-Caltech/MSSSby Kat Troche of the Astronomical Society of the Pacific

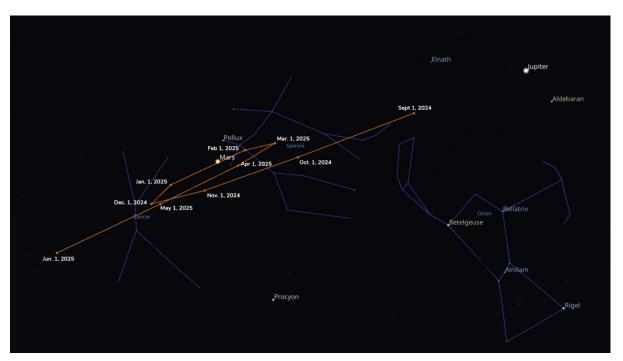
January's Night Sky Notes: The Red Planet

12/18/2024

Have you looked up at the night sky this season and noticed a bright object sporting a reddish hue to the left of Orion? This is none other than the planet Mars! January will be an excellent opportunity to spot this planet and some of its details with a medium-sized telescope. Be sure to catch these three events this month.

Martian Retrograde

Mars entered retrograde (or backward movement relative to its usual direction) on December 7, 2024, and will continue throughout January into February 23, 2025. You can track the planet's progress by sketching or photographing Mars' position relative to nearby stars. Be consistent with your observations, taking them every few nights or so as the weather permits. You can use free software like Stellarium or Stellarium Web (the browser version) to help you navigate the night as Mars treks around the sky. You can find Mars above the eastern horizon after 8:00 PM local time.



This mid-January chart shows the path of Mars from September 2024 to June 2025 as it enters and then exits in retrograde motion. Mars appears to change its direction of motion in the sky because Earth is passing the slower-moving Mars in its orbit. Credit: Stellarium

Hide and Seek

On the night of January 13th, you can watch Mars 'disappear' behind the Moon during an occultation. An occultation is when one celestial object passes directly in front of another, hiding the background object from view. This can happen with planets and stars in our night sky, depending on the orbit of an object and where you are on Earth, similar to eclipses.



Figure 1: A simulated view of the Moon as Mars begins its occultation on January 13, 2025. Credit: Stellarium

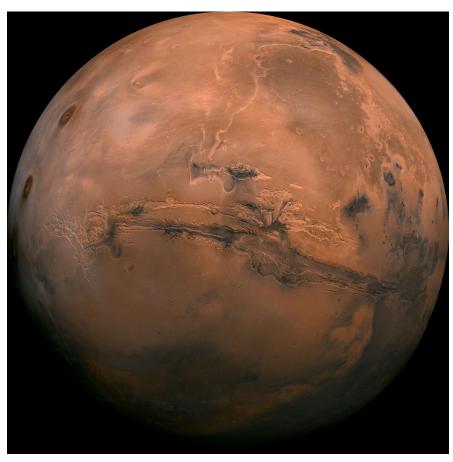
Depending on where you are within the contiguous United States, you can watch this event with the naked eye, binoculars, or a small telescope. The occultation will happen for over an hour in some parts of the US.

You can use websites like <u>Stellarium Web</u> or the Astronomical League's <u>'Moon Occults Mars' chart</u> to calculate the best time to see this event.

Closer and Closer

As you observe Mars this month to track its retrograde movement, you will notice that it will increase in brightness. This is because Mars will reach **opposition** by the evening of January 16th. Opposition happens when a planet is directly opposite the Sun, as seen from Earth. You don't need to be in any specific city to observe this event; you only need clear skies to observe that it gets brighter. It's also when Mars is closest to Earth, so you'll see more details in a telescope.

Want a quick and easy way to illustrate what opposition is for Jupiter, Saturn, Mars, or other outer worlds? Follow the instructions on our <u>Toolkit Hack: Illustrating Opposition with Exploring the Solar System</u> page using our <u>Exploring Our Solar System</u> activity!



A mosaic of the Valles Marineris hemisphere of Mars projected into point perspective, a view similar to that which one would see from a spacecraft. The mosaic is composed of 102 Viking Orbiter images of Mars. Credit: NASA/JPL-Caltech

Mars has fascinated humanity for centuries, with its earliest recorded observations dating back to the Bronze Age. By the 17th century, astronomers were able to identify features of the Martian surface, such as its <u>ice</u> <u>caps and darker regions</u>. Since the 1960s, exploration of the Red Planet has intensified with robotic missions from various space organizations. Currently, NASA has <u>five active missions</u>, including rovers and orbiters, with the future focused on human exploration and habitation. Mars will always fill us with a sense of wonder and adventure as we reach for its soil through initiatives such as the <u>Moon to Mars Architecture</u> and the <u>Mars Sample Return</u> campaign.

Star Party Schedule

Date	Arrival Time	Civil Dusk
Jan 24 2025	5:00 PM	17:29 EST
Feb 28 2025	5:30 PM	18:11 EST
Mar 28 2025	7:00 PM	19:44 EDT
Apr 25 2025	7:30 PM	20:17 EDT
May 23 2025	8:00 PM	20:49 EDT
Jun 20 2025	8:30 PM	21:08 EDT
Jul 25 2025	8:30 PM	20:53 EDT
Aug 22 2025	7:30 PM	20:14 EDT
Sep 19 2025	7:00 PM	19:25 EDT

Directions To The Star Party Site

<u>Lake Taghkanic State Park</u> is in the town Ancram, NY. The park entrance is on the Taconic Parkway 10 minutes north of the exit used for Wilcox park.

Star Parties at Lake Taghanic are held in the West Parking lot, next to the beach. The skies are darker than in Wilcox, with less stray light to deal with. The horizon is also much lower, especially to the south and east, making many more targets possible.

IMPORTANT: all events at Lake Taghkanic State Park require an **RSVP** which includes license plate number of the car you are bringing (please do so via <u>Meetup</u>). The park is patrolled by state police, and all non registered cars will be ticketted and risk our use of the park.

General Information:

- Dates listed for star parties are the primary dates. The rain date is the following night unless otherwise noted. Only one session is held for a given weekend, usually on the primary date, Friday, unless postponed (usually due to inclement weather) to the backup date, Saturday. Exceptions to this are noted in the "Scheduled Events" section above.
- All outdoor events are FREE! All are welcome. If you bring small children, it is <u>your</u> responsibility to keep a close eye on them. Please do not bring white-light flashlights. Instead, bring a red astronomer's flashlight or an ordinary flashlight covered with several layers of red cellophane. If in doubt about the weather, check the status of the event at <u>www.midhudsonastro.org</u>.