

## December, 2023

Website: www.midhudsonastro.org

**President**: Jack Chastain **Secretary**: Jim Rockrohr

Newsletter Editor: Rick Versace

**Publicity:** Tim Denman **Speakers:** Alexandra Passas

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

groups.io Group: mhaa.groups.io

Vice President: Dave Sherman

Treasurer: Eric Myers

Membership Coordinator: Eric Myers

Webmaster: Steve Dittmar Outreach: Joe Macagne

College Liaison: Dr. Amy Bartholomew

The next meeting is December 19<sup>th</sup>, 2023, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

# **December Speaker Member Presentations and After Party**

The December meeting does not feature an outside speaker. Members are invited to present short talks on any subject of interest. If you have something you would like to present, please let me know and we can fit you in!

Once presentations (if any) are completed, we enjoy snacks, cookies and other goodies brought by members. Please feel free to bring something tasty for everyone to enjoy. If you bring something to drink (nothing alcoholic, please!) be sure to also bring something to drink it IN!

Also be mindful that the school really frowns on food in the auditorium, so if you drop crumbs, please try to pick them up! We should have a supply of small plates available for everyone to use.

Come enjoy Holiday snacks with MHAA - All are invited to attend. Those online may remain online to chat if desired, but sorr, we can't get cookies over USB (yet!).

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Online link to the MHAA monthly Business Meeting Agenda:

http://mhaa.midhudsonastro.org/agenda

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"Astronomy at Lake Taghkanic State Park"

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

**Thanks Eric Myers** 

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#### **December Officer Elections**

It's that time again!MHAA Officers and Board members are voted on during the December meeting All officer positions are open and available. Nominations will be taken from the floor before voting and anyone wishing to stand for office may be nominated. The Nominating Committee will submit the initial nominations from the floor.

#### Office positions and Current officers:

President: Jack Chastain

Vice President: David Sherman Recording Secretary: Jim Rockrohr

Treasurer: Eric Myers Publicity: Tim Denman

Newsletter Editor: Rick Versace

Board: Alex Passas Karl Loatman

Steve Dimar Willie Yee

Please consider supporting the Association by becoming an officer!

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## Minutes of the monthly meeting of the Mid Hudson Astronomical Association, November 21, 2023

The meeting was called to order at 7:30 PM by President Jack Chastain in the Coykendall Auditorium at SUNY New Paltz, NY, and on the online application Zoom.

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

#### Officer's Reports:

**President:** Jack Chastain was present.

- Officer nominations are needed. Scott Ewart to compile the list for voting next month.
- We need someone to be membership coordinator. Eric Myers is acting.

Vice President: Dave Sherman was present.

- Nothing to report

Recording Secretary: Jim Rockrohr was present.

- Nothing to report

**Publicity:** Tim Denman was present.

- Draft press release titled for December meeting by mistake. Corrected for final version.

Newsletter: Rick Versace was not present.

o (No report)

Treasurer: Eric Myers was present.

- See latest newsletter for numbers.
- Slack renewal approaching.
  - o Cost too high?
  - o Steve Dittmar working with Eric Myers on an alternative within our own website.
- Motion made, seconded, and approved for Eric to spend up to \$200 on eclipse glasses.
  - o Eric had already purchased 250 glasses for \$160. He will be reimbursed.

Outreach: (need a coordinator)

o No report

**Speakers:** Alex Passas was present.

- Speakers booked through January.
- December is member talks
- January is "Telescopes 101"
- Alex is resigning her post. We need a replacement.
  - o Technically the Vice President is "chair of the speaker committee".

Membership: Eric Myers (acting) was present

- Eric and Steve Dittmar need to fix competing email notices.
- If you get a renewal request that does not have Eric's name on it, ignore it.

Solar System Ambassador: Willie Yee was present.

- No report

Webmaster: Steve Dittmar was present

- Fixing bugs. Working on Slack replacement.

#### **Old Business:**

- Last club star party moved to Saturday and went well.

- o About 20 people, many newbies.
- o Tim had a rapt audience wrapped around him.
- o Photographers stayed until about 1:30.
- Kent event had a good group.
- Inness event cancelled due to weather.
- Arlington High School event moved, date 12/14
- Jack gave a Life Long Learning talk that was well received. They would like a 5 class series.
- Millerton event cancelled.
- Saugerties High School event had a good turnout.
- West Point Astronomy Club event had 5 people.
  - o Jack was the only one from MHAA.
  - o 2 ISS passes.
- Be sure to get on MeetUp to get notices regarding our star party status and RSVP for the star parties.

#### **New Business and Events:**

- Elections coming.
- Holiday party need a coordinator.
- Alex Passas stepping down as speaker coordinator. Need a replacement.
- Opportunity to use the **Shawangunk Grasslands bird sanctuary**.
  - o Old runway; flat.
  - o Some interest from our group.
  - o Tim will pick dates and close with them.
- **James Evens Elementary School** event, 12/5,6 or 7.
  - Next club star party: Friday, 12/8
  - Town of Esopus Library 12/15

#### **Reminders:**

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

#### **Observing Reports:**

- (none reported).

The business meeting was adjourned at 8:00 PM. There were 16 Zoom windows open at the end of the business meeting and approximately 8 people were in the auditorium. The next meeting is December 19<sup>th</sup>, 2023, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

The presentation that followed was by Eric Myers, "Stellarium 101".

Submitted by James Rockrohr, December 16, 2023.

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## MHAA Treasurer's Report for December 2023

As of 16 December 2023 we have \$4458.30 in our bank account and \$2715.69 in our PayPal account, with the Treasurer holding \$48 in petty cash. Our monthly payment of \$15.99 for Zoom was paid on the 15th, as usual, and this month we received \$150.64 for 2 new members and 4 membership renewals.

Our payment this month for Google gSuite was \$32.44, which is exactly double what it has been since January (except that last month was a few cents more). I do not know the reason, but I do see that their prices went up last January. It

might be that we've run out the end of a year-long deal, or they have started bi-monthly billing, but I don't know for sure. I will report further news if I learn anything, but we should be prepared to pay more for this service moving forward.

Last month purchased 250 eclipse glasses, at a cost of \$160.92, to distribute to members for the April 2024 eclipse. We already have about 50 left over from last time. Given that we do not have that many members, I propose to sell the remainder to interested members of the public for whatever events we are involved in then at the nominal cost of \$1 each.

I have been informed by our insurance company that our bill for next year, expected in February or March, will increase by \$116 (from the \$696 we paid last year).

Respectfully Submitted, Eric Myers Treasurer

#### **MHAA Membership Report for December 2023**

Our Slack workspace has 76 "regular" members (including Admins) which does not include 20 deactivated accounts or 39 invitations sent out but not used. Of those 71 regular members, 28 are classified as "active" this month for billing purposes (though we are not actually billed, since we use the Free service). Our mailing list on groups.io, which is for both members and non-members interested in our activities, now has 108 subscribers. We have over 2500 followers on our site on Meetup.com (they call them "members," but they are not paid MHAA members), 1029 US followers for our Facebook page, and 120 followers on Instagram.

Respectfully Submitted, Eric Myers Acting Membership Coordinator

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#### 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 <a href="mightsky.jpl.nasa.gov">nightsky.jpl.nasa.gov</a> to find local clubs, events, and more!

A Flame in the Sky – the Orion Nebula By Kat Troche

It's that time of year again: winter! Here in the Northern Hemisphere, the cold, crisp sky offers spectacular views of various objects, the most famous of all being <u>Orion the Hunter</u>.

Credit: Stellarium Web

As we've previously mentioned, Orion is a great way to <u>test your sky</u> <u>darkness</u>. With your naked eye, you can easily spot this hourglass-shaped constellation. Known as an epic hunter in Greco-Roman, Orion and all its parts have had many names and meanings across many cultures. In Egyptian mythology, this constellation represented the god *Sah*. The Babylonians referred to it as *The Heavenly Shepard*. In most cultures, it is Orion's Belt that has many stories: *Shen* in Chinese folklore, or *Tayamnicankhu* in Lakota storytelling. But the Maya of Mesoamerica believed that part of Orion contained *The Cosmic Hearth* – the fire of creation.

1,500 light years away from Earth sits the star-forming region and crown jewel of Orion – Messier 42 (M42), the Orion Nebula. Part of the "sword" of Orion, this cloud of dust and gas sits below the first star in Orion's Belt, Alnitak, and can easily be spotted with the naked eye under moderate dark skies. You may also use binoculars or a telescope to resolve even more details, like the Trapezium: four stars in the shape of a baseball diamond. These young stars make up the core of this magnificent object.

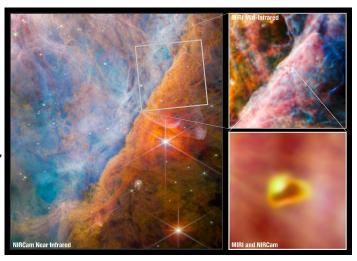


Of course, it's not just for looking at! M42 is easily one of the most photographed nebulae around, by astrophotographers here on the ground, large ground-based observatories, and space telescopes alike. It has long been a place of interest for the Hubble, Spitzer, and Chandra X-ray Space Telescopes, with James Webb Space Telescope joining the list in February 2023. Earlier this year, NASA and the European Space Agency released <u>a new photo</u> of the Orion Nebula taken from JWST's NIRCam (Near-Infrared Camera), allowing scientists to image this early star forming region in both short and long wavelengths.

ESA/Webb, NASA, CSA, M. Zamani (ESA/Webb), PDRs4ALL ERS Team

But stars aren't the only items photographed here. In June 2023, JWST's NIRCam and MIRI (mid-infrared instrument) imaged a developing star system with a planetary disk forming around it. That's right – a solar system happening in real time – located within the edges of a section called the <u>Orion Bar</u>. Scientists have named this planet-forming disk **d203-506**, and you can learn more about the chemistry found <u>here</u>. By capturing these objects in multiple wavelengths of light, we now have even greater insight into what other objects may be hiding within these hazy hydrogen regions of our night sky.

In addition to our Dark Sky Wheel, a fun presentation you can share with your astronomy club would be our



<u>Universe Discovery Guide: Orion Nebula, Nursery of Newborn Stars</u> activity. This will allow you to explain to audiences how infrared astronomy, like JWST, helps to reveal the secrets of nebulae. Or, you can use public projects like the NASA-funded <u>MicroObservatory</u> to capture M42 and other objects.

Learn more about what to spy in the winter sky with our upcoming mid-month article on the <u>Night Sky Network</u> <u>page</u> through NASA's website!

## **Star Party Schedule**

Date	Arrival Time	Civil Dusk
Oct 13 2023	6:00 PM	18:44 EDT
Nov 10 2023	4:30 PM	17:07 EST
Dec 8 2023	4:30 PM	16:54 EST
Jan 5 2024	4:30 PM	17:09 EST
Feb 9 2024	5:00 PM	17:49 EST
Mar 8 2024	6:00 PM	18:22 EST
Apr 5 2024	7:30 PM	19:54 EDT
May 3 2024	8:00 PM	20:28 EDT

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### **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>.