



Mid-Hudson Astronomical Association

January, 2023

Website: www.midhudsonastro.org

groups.io Group: [mhaa.groups.io](https://groups.io/g/mhaa)

President : Jack Chastain

Vice President: Dave Sherman

Secretary: Jim Rockrohr

Treasurer: Eric Myers

Newsletter Editor: Rick Versace

Membership Coordinator: Eric Myers

Publicity: Tim Denman

Webmaster: Steve Dittmar

Speakers: Alexandra Passas

Outreach: Joe Macagne

College Liaison: Dr. Amy Bartholomew

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



The next meeting is January 17th, 2023, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

Zoom link for the upcoming meeting:

<https://us02web.zoom.us/j/89974861899?pwd=YVI4U1I1c3pWZUFYMDVaUmk4bmdTUT09>

If needed, the password is Andromeda

Meeting location change from last month

Coykendall Science Building Auditorium
New Paltz, NY



January Speaker

Science, Magic, and Medicine

Dr. Willie K. Yee

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An exploration of the many contributions that magic and science have given each other. This is combination lecture/demonstration.

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Online link to the MHAA monthly Business Meeting Agenda:

<http://mhaa.midhudsonastro.org/agenda>

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Minutes of the monthly meeting of the Mid Hudson Astronomical Association, December 20, 2022

The meeting was called to order at 7:30 PM by President Jack Chastain in the Lecture Center room 104 at SUNY New Paltz and on the online application Zoom.

The minutes of the November meeting as published in the newsletter were unanimously approved after a correction that Eric Myers WAS present.

Officer's Reports:

President: Jack Chastain was present.

- Voting is in progress online. Please log in and vote. Link is in the meeting chat group.
- It was noted that Steve Carey has moved away from the area so is no longer a candidate for director.
- Jack reminded everyone that ALL vehicles attending star parties must be listed in the MeetUp RSVP. If your group comes in multiple cars all of their license plates, makes and models must be listed.

Vice President: Dave Sherman was present

- (Report was not audible on Zoom.)

Secretary: Jim Rockrohr was present (on Zoom).

- Nothing new to report.

Outreach: Joe MacCagne was not present

- Tim Denman is handling communications with Sam's Point along with Joe.

Publicity: Tim Denman was present.

- He didn't post the last star party on Facebook due to a format change. (Star party was cancelled due to weather anyway.)

Newsletter: Rick Versace was not present.

- No report.

Treasurer: Eric Myers was present.

- See the newsletter for the latest information.

- Google G-suite bill is about \$20.00 per month. We need to get our proof of being a 501c3 organization approved to eliminate this fee. Eric is working on it.
- The web master will remove unneeded Google accounts to save money.

Upcoming Programs: Alexandra Passas was not present.

- January will be Willie Yee.
- February will be a SUNY student presentation.

Membership: Rick Versace was not present.

- No report.

Solar System Ambassador: Willie Yee was present.

- Mars Insight is dead due to dust accumulation.
- Artemis landed successfully.
- Night Sky Awards are coming:
 - o Email nominations to Willie. Candidates must have participated in 3 or more public outreach events during 2022.

Webmaster: Steve Dittmar was present.

- Renewal reminders are working.
- The remaining emails with sign on credentials WILL go out this week.
- Doing other routine web maintenance.

Old Business:

- The last club star party had:
 - o Lots of new people.
 - o Good participation.
 - o Many families with kids.
 - o We need to remember to ask people how they found out about us and feed that back to Tim.
- **Saugerties High School star party.**
 - o Good turnout; about 50.
 - o Clouds in and out but got some good viewing in. Chilly.
- **Girl Scouts in Kingston:**
 - o Several groups of scouts attended.
- **Wappinger Falls elementary school** event was well received.
- **Wildflower Farm events:**
 - o It is a tiny house resort.
 - o We are doing sky observing on Thursday, Friday, and Saturday nights for 3 weeks in December, weather permitting.
 - o Have done 2 nights without clouds, so far. The club is being paid.
 - o Contact Jack if you would like to participate in the remaining sessions.
- **Opus 40:**
 - o Star party was originally cancelled due to weather forecast.
 - o But clouds began to clear and Rick Versace went anyway.
 - o It was a good show after all.
- The club's 8" Dob, 13" Dob and 8" Meade telescopes are available to members. There is also a large collection of CDs and several imagers that can be loaned. Contact Jack.

New Business:

- Jack proposes a slight adjustment to our 2023 Star Party schedule to avoid the moon.
 - o Change the schedule to stipulate the closest Friday before a new moon (not just closest to new moon).
 - o This changes a few dates on the schedule. They will be updated in the next newsletter.
- Annual Winter Dinner discussed.
 - o Jack contacted the Lakeview House Restaurant in Orange County and they are happy to have us.
 - o They are on Lakeside Road on Orange Lake.

- We can choose January 13th or the 27th starting at 7:30.
- Jack will poll the membership and get a headcount via email.

Upcoming events:

- **Next club star party** – December 23rd, Lake Taghkanic state park.
- **Sam's Point** – latest info is that there is no room in this year's remaining schedule. Maybe in the Spring.
- **Wedding** – April. Details TBD.
- **Need Presenters!** – Jack needs help with all of the requested events. Please consider volunteering to organize/present events. See Jack.

Observing Reports:

- Mars-Moon conjunction.

2 new members introduced themselves. They are SUNY astronomy students.

Voting was closed and the results announced. All officers and directors were re-elected. Steve Dittmar will take Steve Carey's place on the board.

The business meeting was adjourned at 8:25 PM. There were 5 Zoom windows open at the end of the business meeting and approximately 8 were live at the Lecture Center. **The next meeting is January 17th, 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 Willie Yee, SSA: "How to Use Magic to Teach the Sciences".

Submitted by James Rockrohr, January 14th, 2023.

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#### **MHAA Treasurer's Report for January 2023**

As of 15 January 2023 we have \$4801.00 in our bank account, which will go up on Tuesday by \$51 when I deposit two checks I just received for membership renewals. We have \$1678.55 in our PayPal account, which will go down before Tuesday by \$14.99 due to an automatic monthly payment for our Zoom account. The Treasurer currently holds \$40 in small bills as petty cash.

This month we took in \$352.14 for 12 renewed memberships and 2 new members (this includes the two checks mentioned above). We received a donation of \$150 from Opus 40 for participating in an event there (thanks, Rick!). And we paid \$19.46 to Google for gSuite for the month.

According to the by-laws our Fiscal Year begins in March, and the Treasurer is directed to present a budget at the March meeting for approval by the members. (The by-laws don't actually say the Treasurer must follow the approved budget, but I think that is implied. When we next revise the by-laws I suggest we make that explicit.) Suggestions for what to include in the budget (a new imager? a new scope?) are welcomed and can be discussed on Slack and during the meeting before we vote.

Respectfully Submitted,  
Eric Myers  
Treasurer

#### **MHAA Membership Report for January 2023**

As of 15 December 2023 the club has 66 paid members in good standing and 14 lapsed memberships, of which 2 expired over a year ago. We have 2 student members and 12 lifetime members. This month we had 12 membership renewals and gained 2 new members.

Our Slack workspace has 91 members (which does not include 26 deactivated accounts). That number includes 33 invitations sent out but not used, so there are actually just 58 members using Slack. Everyone who uses Slack is subscribed to the #general and #random channels, but the other channels (#imaging, #organizing, and #hardware) only have between 20 and 30 members. I suggest that everybody at least look at the #imaging channel and consider subscribing, because some of our members are posting some really nice works.

This month some members received an email saying that their membership had expired, even though they had already renewed. Those emails came from the new website that the Webmaster has been working on and used an out-of-date roster. He and I will work together to transition to the new system with as few problems like this as we can manage.

Respectfully Submitted,  
Eric Myers  
Acting Membership Coordinator

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This article is distributed by NASA Night Sky Network

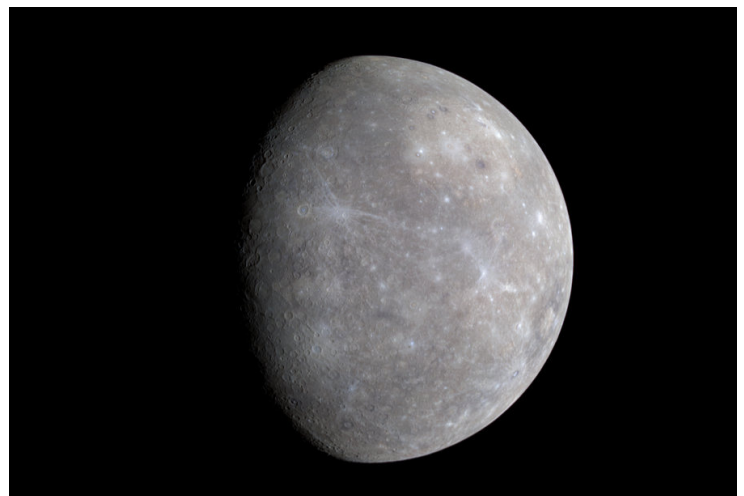
The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

Spot the Messenger: Observe Mercury

David Prosper

Most planets are easy to spot in the night sky, but have you spotted Mercury? Nicknamed the Messenger for its speed across the sky, Mercury is also the closest planet to the Sun. Its swift movements close to our Sun accorded it special importance to ancient observers, while also making detailed study difficult. However, recent missions to Mercury have resulted in amazing discoveries, with more to come.

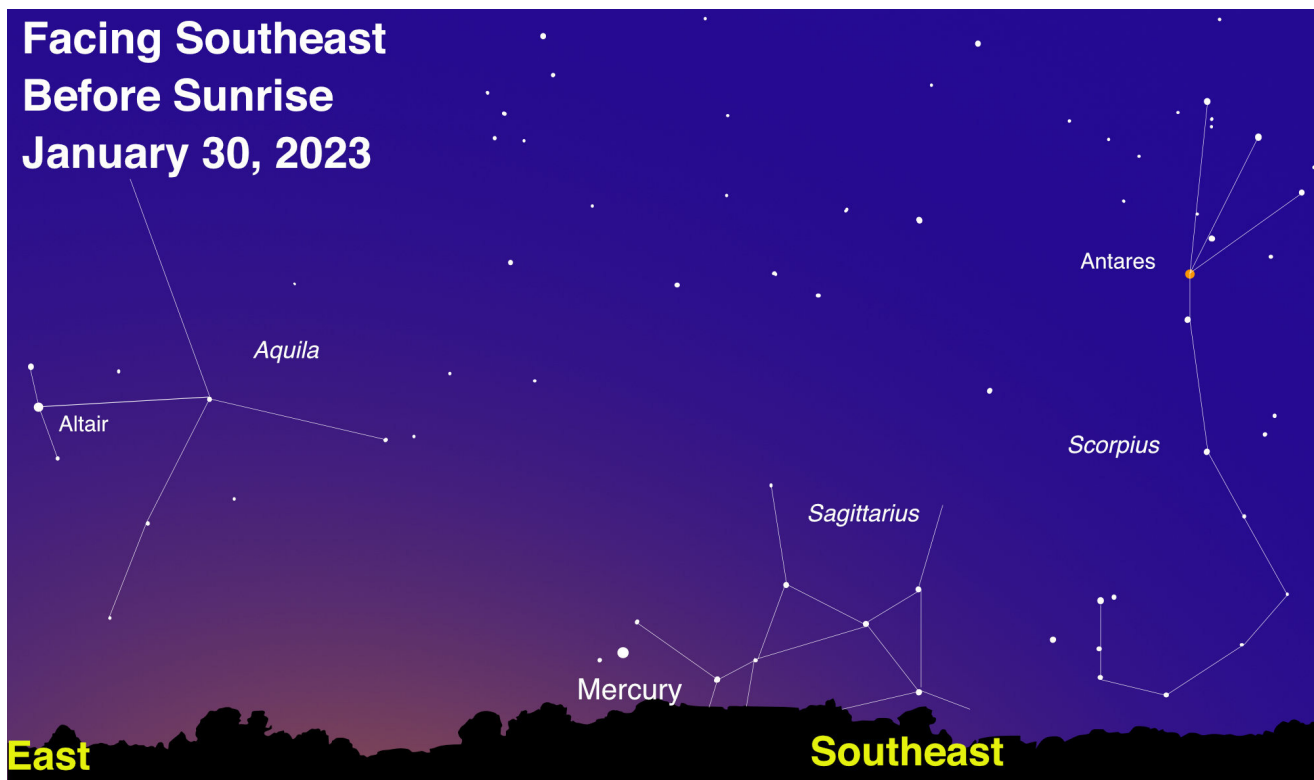
Mercury can be one of the brightest planets in the sky – but also easy to miss! Why is that? Since it orbits so close to the Sun, observing Mercury is trickier than the rest of the “bright planets” in our solar system: Venus, Mars, Jupiter, and Saturn. Mercury always appears near our Sun from our Earth-bound point of view, making it easy to miss in the glare of the Sun or behind small obstructions along the horizon. That’s why prime Mercury viewing happens either right before sunrise or right after sunset; when the Sun is blocked by the horizon, Mercury’s shine can then briefly pierce the glow of twilight. Mercury often appears similar to a “tiny Moon” in a telescope since, like fellow inner planet Venus, it shows distinct phases when viewed from Earth! Mercury’s small size means a telescope is needed to observe its phases since they can’t be discerned with your unaided eye. Safety warning: If you want to observe Mercury with your telescope during daytime or before sunrise, be extremely careful: you don’t want the Sun to accidentally enter your telescope’s field of view. As you may already well understand, this is extremely dangerous and can not only destroy your equipment, but permanently blind you as well! That risk is why NASA does not allow space telescopes like Hubble or the JWST to view Mercury or other objects close to the Sun, since even the tiniest error could destroy billions of dollars of irreplaceable equipment.



Mercury is hot, small, and heavily cratered across its gray surface, as seen in this image from NASA MESSENGER. Mercury is the most heavily cratered planet in our solar system, since it lacks either a substantial atmosphere or geologic activity to erode surface features like craters - similar in certain aspects to the surface of our own Moon. Credit: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Source: <https://solarsystem.nasa.gov/resources/439/mercurys-subtle-colors/>

Despite being a small and seemingly barren world, Mercury is full of interesting features. It's one of the four rocky (or terrestrial) planets in our solar system, along with Earth, Venus, and Mars. Mercury is the smallest planet in our solar system and also possesses the most eccentric, or non-circular, orbit of any planet as well: during a Mercurian year of 88 Earth days, the planet orbits between 29 million and 43 million miles from our Sun – a 14-million-mile difference! Surprisingly, Mercury is not the hottest planet in our solar system, despite being closest to the Sun; that honor goes to Venus, courtesy its thick greenhouse shroud of carbon dioxide. Since Mercury lacks a substantial atmosphere and the insulating properties a layer of thick air brings to a planet, its temperature swings wildly between a daytime temperature of 800 degrees Fahrenheit (427 degrees Celsius) and -290 degrees Fahrenheit (-179 degrees Celsius) at night. Similar to our Moon, evidence of water ice is present at Mercury's poles, possibly hiding in the frigid permanent shadows cast inside a few craters. Evidence for ice on Mercury was first detected by radar observations from Earth, and followup observations from NASA's MESSENGER mission added additional strong evidence for its presence. Mercury sports a comet-like tail made primarily of sodium which has been photographed by skilled astrophotographers. The tail results from neutral atoms in its thin atmosphere being pushed away from Mercury by pressure from the nearby Sun's radiation.

NASA's Mariner 10 was Mercury's first robotic explorer, flying by three times between 1974-1975. Decades later, NASA's MESSENGER first visited Mercury in 2008, flying by three times before settling into an orbit in 2011. MESSENGER thoroughly studied and mapped the planet before smashing into Mercury at mission's end in 2015. Since MESSENGER, Mercury was briefly visited by BepiColombo, a joint ESA/JAXA probe, which first flew by in 2021 and is expected to enter orbit in 2025 - after completing six flybys. Need more Mercury in your life? Check out NASA's discoveries and science about Mercury at solarsystem.nasa.gov/mercury/, and visit the rest of the universe at nasa.gov.



Mercury reaches maximum western elongation on the morning of January 30, which means that your best chance to spot it is right before sunrise that day! Look for Mercury towards the southeast and find the clearest horizon you can. Observers located in more southern latitudes of the Northern Hemisphere have an advantage when observing Mercury as it will be a bit higher in the sky from their location, but it's worth a try no matter where you live. Binoculars will help pick out Mercury's elusive light from the pre-dawn glow of the Sun. Image created with assistance from Stellarium

2023 Star Party Schedule

(New format thanks to Eric)

Date	Arrival Time	Civil Dusk
Jan 20 2023	5:00 PM	17:25 EST
Feb 17 2023	5:30 PM	17:59 EST
Mar 17 2023	7:00 PM	19:31 EDT
Apr 21 2023	7:30 PM	20:12 EDT
May 19 2023	8:00 PM	20:45 EDT
Jun 16 2023	8:30 PM	21:07 EDT
Jul 14 2023	8:30 PM	21:02 EDT
Aug 11 2023	8:00 PM	20:31 EDT
Sep 15 2023	7:00 PM	19:32 EDT



Directions To The Star Party Site

[Lake Taghkanic State Park](#) 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 Taghkanic 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 [Meetup](#)). The park is patrolled by state police, and all non registered cars will be ticketed 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 **your** 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 www.midhudsonastro.org.