



December, 2024

Website: www.midhudsonastro.org

President : Jack Chastain
Secretary: Jim Rockrohr
Newsletter Editor: Rick Versace
Publicity: Tim Denman
Speakers: Bart Henin

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: Michael Goldstein
College Liaison: Dr. Amy Bartholomew

The next meeting is December 17th, 2024, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.

December Speaker

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

Online link to the MHA A monthly Business Meeting Agenda:

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

"Astronomy at Lake Taghkanic State Park"

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



Election of MHAA Officers

All officer and board member positions are open for voting in December!

You may vote online any time before the meeting, courtesy of our WebMaster, Steve Dittmar. You must be a member and logged into the MHAA Website to vote.

Voting will close online at a time of Steve's choosing (to give him time to tabulate data at the meeting) so if you can't be there in-person, feel free to use the online voting form. Only active members may vote.

Link: <https://midhudsonastro.org/2025-officer-vote/>

All current officers are standing for current office. If you would like to volunteer for a position, PLEASE feel free to notify Steve, Jack or Eric and we will be certain to get your name on the ballot.

Ballot:

President: Jack Chastain

Vice President: David Sherman

Treasurer: Eric Myers

Recording Secretary: James Rockrohr

Publicity: Tim Denman

Newsletter Editor: Rick Versace

Directors (pick 4):

Alex Passas

Karl Loatman

Steve Dittmar

Willie Yee

All ballot lines offer the option for "abstain" and a "Write-In" candidate if you prefer.

If you would like to volunteer for ANY of the officer or board positions, and let us know in sufficient time, we will add your name to the ballot.

In-person voting and presentation of the web form results will be the last item in the normal Business meeting and the newly elected officers will take position at the first January Meeting.

Thanks for your Support of MHAA!



Minutes of the monthly meeting of the Mid Hudson Astronomical Association,

November 19, 2024

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.

- Elections coming next month.
- No technical committee meetings in the last month.

Vice President: Dave Sherman was present.

- Club star party scheduled for 11/1 clouded out; moved to 11/2.
- Had about 20 people at the star party on 11/2. A good night.

Recording Secretary: Jim Rockrohr was present.

- Nothing to report.

Publicity: Tim Denman was present.

- Hudson Valley One now only allows name of event and time in free listing.
- Full listing costs \$25 per event. (Not worth it for us.)

Newsletter: Rick Versace was not present.

- (No report).

Treasurer: Eric Myers was present.

- See newsletter for latest numbers.
- Expecting donations from Wildflower Farms and Auto Camp.

Outreach: Mike Goldstein was not present.

- Confirmed with **Olana** for a star party for this Friday, 11/22 (11/23 rain date).
 - Stay tuned; may be too cloudy.

Speakers: Bart Henin was present.

- December is club presentations and munchies. (Willie, Eric, and Jack, presenting so far) See Bart or Jack if you want to present.
- Scott Ewart booked for January (Update on Telescope Build).
- Mike Goldstein for February (Hudson Valley Dark Skies).
- March TBD.

Membership: Eric Myers (acting) was present

- Needs some help.
- See database on our website for latest membership numbers.
- 4 student members.
- Fully migrated to web database; old program turned off.

Solar System Ambassador: Willie Yee was present.

- Nothing to report.

Webmaster: Steve Dittmar was present

- Normal maintenance and updates.
- Preparing for a web upgrade.
- Lending library will be next focus for enhancement.
 - If you have any of the club's equipment SEND STEVE A GOOD PICTURE(S).

Old Business:

- **Last club star party** – 11/2, was moved to Saturday night due to weather. Good turnout (~20 people) and a good sky.
- **Kent Star Party** - 11/2. Nicely attended. 4 Club members there.
- **Otisville 4H** – Well attended with lots of kids and parents. Had a good sky. They have a nice field.
- **Wildflower Farms** – 11/18. Lots of people but too much light for deep sky targets. Donation coming.
- **Night Sky Network Award** nominations due. If you attended 4 or more PUBLIC OUTREACH events this year give your name to Willie.

New Business:

- **Club elections** at December meeting.
 - Need a nominating committee, but most current officers are willing to continue.
 - 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.
 - Unelected officers:
 - Membership Coordinator – TBD
 - Webmaster – Steve Dittmar
 - Speakers – Bart Henin
 - Outreach – Michael Goldstein
 - College Laison – Dr. Amy Bartholomew
- December meeting presentations will be by club members. If you want to present something, see Bart or Jack.
- We need to update the club owned equipment list. Be sure Jack or Steve knows what you have so the correct information can be put on the web site.

Events:

- **Olana** - 11/22 (11/23 rain date). See Mike Goldstein.
- **Queer Outdoor Adventurers star party** – 11/23. Event will be held even if cloudy. See Mike.
- **Next club star party** – 11/29 (11/30 rain date). Lake Taghkanic. **Remember to RSVP.**
- **Saugerties High School** – 12/6. Usually a good turnout. See Jack.
- **Olana Sun party** – 12/21 (Sunday, 1-4 PM), see Mike Goldstein.

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 8:02 PM. There were 14 Zoom windows open at the end of the business meeting and approximately 12 people were in the auditorium. **The next meeting is December 17th, 2024, 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 Dr. Willie Yee, Solar System Ambassador: “What Have Space Telescopes Told Us about the Universe?”

Submitted by James Rockrohr, December 14, 2024.

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### **MHAA Treasurer’s Report for December 2024**

As of 15 December 2024 we have \$5,526.78 in our bank account and \$2,695.58 in our PayPal account, with the Treasurer holding \$37.00 in petty cash. This month we took in \$74.82 in dues for 1 new member and 2 renewing members. Our monthly payment for Google gSuite was again \$31.14 this month, and we paid \$15.99 on the 15th for Zoom Pro for one month. Our Stargazing Permit for Lake Taghkanic State Park has been renewed for 2025, at a cost of \$25.

The cost of our insurance policy for the coming year, which will take effect on 10 February 2025, will go up by \$101, for a total of \$913.00.

This month we received \$800 for a star party for a group from CBS held at AutoCamp near Saugerties in October.

The question has been raised recently as to whether or not we are really a 501(c)(3) charity in the eyes of the IRS, since we do not, as far as I know, have an official Letter of Determination. We have been conforming to all of the IRS guidance on what such groups can or cannot do since I have been the Treasurer, and from what I can tell we had been doing so even before that. A Letter of Determination from the IRS is an official validation of charity status, but they are not required. It seems likely that we registered with the IRS before they started giving out such Letters, or at least before they made them available online (in 2014).

I can now definitely state that we are indeed a 501(c)(3) in the eyes of the IRS, which can be confirmed by searching their on-line database for us either by name or our tax ID number (called an EIN - Employer Identification Number - which is essentially the same as a Social Security number for businesses and other organizations). The search tool is at <https://apps.irs.gov/app/eos/> and anyone can find us there. Our EIN is 75-3220239. This site also shows that we have filed IRS form 990-N since at least 2007 (with some gaps), as is required to maintain tax-exempt status.

Another related question has been raised about how we handle income from businesses or private organizations for private star parties or other events. We have been calling these donations, but it may be that this is misleading. I will be researching this over the holiday break, including reading IRS Publication 4221, Compliance Guide for 501(c)(3) Public Charities, with the hope of being able to give an answer at our next meeting.

Respectfully Submitted,  
Eric Myers  
Treasurer

## MHAA Membership Report for December 2024

As of 15 December 2024 the club has 105 members in good standing, of which 4 are students. This month we gained 1 new member, and there were 2 membership renewals.

I want to remind all members that we have a Slack workspace where many members keep in touch between monthly meetings and star parties. There are various channels for different topics of interest. When you start out, you are subscribed to the #general channel for general info and announcements, and the #random channel for off-topic and fun stuff. The #imaging channel is for those who want to share their images or discuss how they are made, and the #hardware channel is for discussions about equipment and repairs. We have 105 members on Slack, of which 34 have been active in the past month or so. Slack is only available to current members — it is one of the benefits of becoming a member of MHAA. It's a great way to discuss astronomy and related topics with others with similar interests.

We have 122 people subscribed to our email list at [mhaa.groups.io](mailto:mhaa.groups.io), 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 2751 “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 1120 followers for our Facebook page, which does not include those from outside the USA, who I think may be bots rather than people. We have 207 followers of our Instagram account.

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 nightsky.jpl.nasa.gov to find local clubs, events, and more!

Spot the King of Planets

By Dave Prosper

Updated by Kat Troche

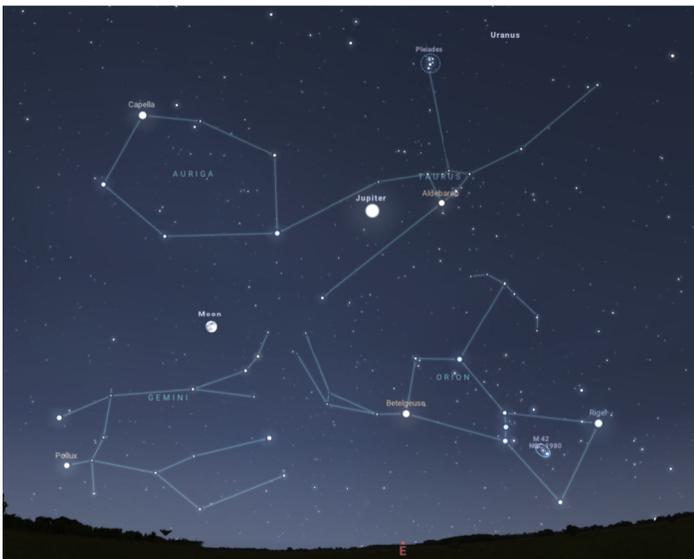
Jupiter is our solar system's undisputed king of the planets! Jupiter is bright and easy to spot from our vantage point on Earth, helped by its massive size and banded, reflective cloud tops. Jupiter even possesses moons the size of planets: Ganymede, its largest, is bigger than the planet Mercury. What's more, you can easily observe Jupiter and its moons with a modest instrument, just like Galileo did over 400 years ago.

NASA's Juno mission captured this look at the southern hemisphere of Jupiter on Feb. 17, 2020, during one of the spacecraft's close approaches to the giant planet. This high-resolution view is a composite of four images captured by the JunoCam imager and assembled by citizen scientist Kevin M. Gill. Credit: NASA, JPL-Caltech, SwRI, MSSS | Image processing by Kevin M. Gill, © CC BY



Jupiter's position as our solar system's largest planet is truly earned; you could fit 11 Earths along Jupiter's diameter, and in case you were looking to fill up Jupiter with some Earth-size marbles, you would need over 1300 Earths to fill it up – and that would still not be quite enough! However, despite its formidable size, Jupiter's true rule over the outer solar system comes from its enormous mass. If you took all of the planets in our solar system and put them together, they would still only be half as massive as Jupiter all by itself. Jupiter's mighty mass has shaped the orbits of countless comets and asteroids. Its gravity can fling these tiny objects towards our inner solar system and also draw them into itself, as famously observed in 1994 when Comet Shoemaker-Levy 9, drawn towards Jupiter in previous orbits, smashed into the gas giant's atmosphere. Its multiple fragments slammed into Jupiter's cloud tops with such violence that the fireballs and dark impact spots were not only seen by NASA's orbiting Galileo probe but also by observers back on Earth!

Look for Jupiter near the Eye of the Bull, Aldebaran, in the Taurus constellation on the evening of December 15, 2024. Binoculars may help you spot Jupiter's moons as small bright star-like objects on either side of the planet. A small telescope will show them easily, along with Jupiter's famed cloud bands. How many can you count? Credit: Stellarium Web



Jupiter is easy to observe at night with our unaided eyes, as well-documented by the ancient astronomers who carefully recorded its slow movements from night to night. It can be one of the brightest objects in our nighttime skies, bested only by the Moon, Venus, and occasionally Mars, when the red planet is at opposition. That's impressive for a planet that, at its closest to Earth, is still over 365 million miles (587 million km) away. It's even more impressive that the giant world remains very bright to

Earthbound observers at its furthest distance: 600 million miles (968 million km)! While the King of Planets has a coterie of 95 known moons, only the four large moons that Galileo originally observed in 1610 – Io, Europa, Ganymede, and Callisto – can be easily observed by Earth-based observers with very modest equipment. These are called, appropriately enough, the Galilean moons. Most telescopes will show the moons as faint star-like objects neatly lined up close to bright Jupiter. Most binoculars will

show at least one or two moons orbiting the planet. Small telescopes will show all four of the Galilean moons if they are all visible, but sometimes they can pass behind or in front of Jupiter or even each other. Telescopes will also show details like Jupiter’s cloud bands and, if powerful enough, large storms like its famous Great Red Spot, and the shadows of the Galilean moons passing between the Sun and Jupiter. Sketching the positions of Jupiter’s moons during the course of an evening – and night to night – can be a rewarding project! You can download an activity guide from the Astronomical Society of the Pacific at bit.ly/drawjupitermoons

Now in its eighth year, NASA’s Juno mission is one of just nine spacecraft to have visited this impressive world. Juno entered Jupiter’s orbit in 2016 to begin its initial mission to study this giant world’s mysterious interior. The years have proven Juno’s mission a success, with data from the probe revolutionizing our understanding of this gassy world’s guts. Juno’s mission has since been extended to include the study of its large moons, and since 2021 the plucky probe, increasingly battered by Jupiter’s powerful radiation belts, has made close flybys of the icy moons Ganymede and Europa, along with volcanic Io. What else will we potentially learn in 2030 with the Europa Clipper mission?

Find the latest discoveries from Juno and NASA’s missions to Jupiter at science.nasa.gov/jupiter/

Originally posted by Dave Prosper: February 2023

Last Updated by Kat Troche: November 2024

Star Party Schedule

Date	Arrival Time	Civil Dusk
Nov 29 2024	4:30 PM	16:55 EST
Dec 27 2024	4:30 PM	17:01 EST
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

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.