



Mid-Hudson Astronomical Association

July, 2022

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 Carey, 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 July 19th, 2022, on Zoom and in person. Check MeetUp for details and link. Link will be sent to all those that RSVP.



July Meeting In Person

Original meeting description listed the meeting in the wrong building - We will be (once again) back in the new Science Hall, most North-Eastern building on Campus, corner of South Manheim (Rt 32) and Plattekill Ave. Parking is available on Orchard Lane (or Plattekill on the Eastern side of S. Manheim) and POSSIBLY in the large main parking lot (bottom left of image included) - Handicapped spaces are available close to the South Side building building entrance.



July Speaker

Astrophotographer Andy Metz will present Practical Strategies for Acquiring and Processing Photos. The presentation topics will include On-Camera Settings, Session Planning, Image Calibration, Narrow-Band Imaging and Advanced Techniques such as HDR, Dithering and Drizzle. This program will be made live via Zoom at 8 PM.

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New online link to the MHAAs monthly Business Meeting Agenda:

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

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Minutes of the monthly meeting of the Mid Hudson Astronomical Association, June 21, 2022

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

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

Officer's Reports:

President: Jack Chastain was present.

- Agenda for each meeting is posted in Google docs.
- Any officer reports?

Vice President: Dave Sherman

- No report.

Secretary: Jim Rockrohr was present.

- Nothing to report.

Publicity: Tim Denman was present.

- Newspapers not carrying recurring events on their calendars.
- Discussion suggested Chronogram.

Newsletter: Rick Versace was not present.

- No report.

Treasurer: Eric Myers was present.

- See the newsletter for the latest information.
- He has a few T-shirts for sale along with Lapel pins for \$4.00
- He is working on getting proof of our 501(c)3 status for Google.

Outreach: We need someone to take over this task.

- Sam's Point would like to have 'scopes for star parties. Assigned to Dave Sherman to coordinate.

Upcoming Programs: Alexandra Passas was present.

- No report.

Membership: Rick Versace was not present.

- No report.

Solar System Ambassador: Willie Yee was present.

- No report.

Webmaster: Steve Dittmar was present.

- Google is pushing us off of free account (for personal and non-profit organizations).
 - o Working to get proof of 501© 3 (see above).
- In the meantime, first 3 months of account are free, then 50% off for first year.
- Regular rate is \$18.00/month.
- See June Newsletter for more details, if interested.

Summer Party Committee: Alex Passas and Scott Ewart present.

- Planning picnic and Star Party at “Field of Dreams” park in Ulster County.
- July 23, 6 PM – 11 PM.
- Rain or Shine (covered pavilion)
- \$100 permit fee to town.
- Club will provide food:
 - o Three 6 foot subs
 - o Salads
 - o Drinks
 - o Plates, cups, utensils, etc.
 - o Pot luck deserts supplied by attendees
 - o Estimated cost for food, etc., is \$547.00
- Attendance is free to members and families.
- YOU MUST RSVP
 - o Attendance is limited to 50 people.
- Motion made to spend up to \$650.00 to cover costs of picnic.
 - o Seconded and passed.
- Bring lawn games and telescopes.

Old Business:

- Star party at Inness was fantastic. Good sky.
- Star party at The Vineyards went well.
- The last club star party was moved to Saturday due to weather.
 - o Attendance and skies were “pretty good”.

New Business:

- Still looking for volunteers to help update the club history document on Google Docs. See Jack.
- Director of STEM at Peekskill schools looking to celebrate the 30th anniversary of the Peekskill Meteorite. Group suggested they contact former member John Bortle who was there.
- Money is available for repairs/upgrades to club telescopes. Need a committee.
- The club’s 8” Dob, 13” Dob and 8” Meade telescopes are available to members. There also is a large collection of CDs and several imagers that can be loaned. Contact Jack.

Upcoming Events

- **Next Club Star Parties:** July 1 and July 29, 2022, at Lake Taghkanic State park. See MeetUp and YOU MUST RSVP with car make, model and license plate number to attend.
- **Vineyard Commons, Highland:** June 24. Looking for ‘scopes. See Jack
- **Walkway:** July 15, August 12. See Eric.
- **Opus 40 number 1:** June 24. See Rick.
- **Opus 40 number 2:** July 29. See Rick.
- **Wedding in the woods:** August 13. Looking for ‘scopes and “guidance” for guests. See Tanya.
- **Girl Scouts in Saugerties:** Date TBD. See Rick.
- **Sam’s Point:** date TBD.

The Organizing Channel in Slack can be used to help set up these events.

Observing Reports:

- Planetary alignments in the early morning.
- Sun spots are active.

The business meeting was adjourned at 8:02 PM. There were about 9 people in the Science Hall and 22 Zoom windows open at the end of the business meeting. **The next meeting is July 19th, 2022, on Zoom and in person. Check MeetUp for details and link. Link will be sent to all those that RSVP.**

The presentation that followed was by Clare Burhenne, Phd student at Rutgers: “History and Physical Properties of the Magellanic Clouds.”

Submitted by James Rockrohr, July 10th, 2022.



MHAA Treasurer’s Report for July 2022

As of 17 July 2022 we have \$4,354.20 in our bank account and \$1343.31 in our PayPal account, with the Treasurer holding \$40 in petty cash. Our monthly Zoom subscription of \$14.99 was paid via PayPal on the 15th of the month, as it always is. Around that same time our 6 month bill for Meetup.com was charged to my credit card for \$106.86, and I have reimbursed myself via PayPal.

Since last month’s report we have received \$99.52 for two new memberships and two renewals. We received a donation of \$100 from Vineyard Commons in Highland, where we had a delightful event on June 3rd. I am afraid I forgot to mention in last month’s report that when long time member and club founder David Lindemann renewed his membership he included an additional donation to the club of \$25. Thank you David, both for the contribution now, and for your contributions back when we were getting started.

I have received notice from PayPal that they are changing their terms of service (as they sometimes do) and that includes their fee structure. They have been taking out a fixed fee for every transaction, plus a percentage of the amount of the transaction. For someone who pays dues of \$26.00 via PayPal, they take \$1.24 and we get slightly less than \$25. Their new system will do away with the fixed fee and just charge 2.99% of the transaction amount. That should lower our fee so that we will get slightly more than \$25 instead, so this is in our favor.

They are also changing their terms so that a U.S. Business (that’s how they view us) cannot receive money from “friends” without the transaction fee. In the past it was possible for someone to pay dues via PayPal of only \$25 but check a box that said something like “sending to a friend,” and we would get the whole \$25. I have not publicized this, because it might be confusing to people, and as we now see, it is going away. I don’t think they are removing the path which lets us send money without a fee to a personal account. That is how I pay back myself and others for expenses we’ve paid for initially out of our own pockets. I’ll keep an eye on this — it will be important after the picnic.

This coming weekend we will have our first (annual, we hope) club picnic, at the Field of Dreams Park outside of New Paltz (near the Fairgrounds). At a previous meeting we voted to pay for some of the expenses, but we later realized that we should also ask people to help with the expenses, to avoid any possible question of our status as a 501(c)(3) organization for federal tax purposes. The club has already paid \$100 to the Town of New Paltz to rent the shelter. The organizers will pay for food and drink and collect money from those in attendance, and we’ll sort it out afterwards and I’ll pay back the organizers after the event.

I’m afraid I have not made any significant progress since the last report on filing IRS Form 1023-EZ to secure a definite determination of our tax exempt status. According to our Webmaster we have a few months until Google starts charging us, and they will not delete our files, so we are not in danger of great damage. I also don’t think the IRS will

give us a letter of determination right away. Still, it's best to get it into their hands soon, so I hope to make progress on it in the next month.

Respectfully Submitted,
Eric Myers
Treasurer

MHAA Membership Report for June 2022

As of 17 July 2022 the club has 65 members in good standing and 4 lapsed memberships, of which 2 expired over a year ago. We still have 12 Lifetime members and 2 student members. This month we welcomed 2 new members, and had 2 renewals of existing memberships. This past month I also went through our Slack membership list and disabled all of the accounts with memberships that have long been expired.

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](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

## Find Hercules and His Mighty Globular Clusters

by David Prosper

**Hercules** is one of the standout heroes of Greek mythology, but his namesake constellation can be surprisingly hard to find - despite being one of the largest star patterns in our night skies! Once you find the stars of Hercules, look deeper; barely hidden in the space around his massive limbs and “Keystone” asterism are two beautiful globular star clusters: M13 and M92! Since the constellation itself is relatively dim but bordered by brighter constellations, you can find the stars of Hercules by looking between the bright stars Vega and Arcturus. They are fairly easy to identify, and we have tips on how to do so in previous articles. Vega is the brightest star in the constellation Lyra and one of the three stars that make up the Summer Triangle (June 2020: Summer Triangle Corner: Vega). Arcturus is the brightest star in the constellation Boötes, and can be found by “arcing to Arcturus” from the handle of the Big Dipper (May 2021: Virgo’s Galactic Harvest). You may be able to Hercules’s “Keystone” asterism first; this distinct pattern of four stars is traditionally shown as the torso of the great hero, though some illustrators prefer marking the Keystone as the head of Hercules. What pattern do you see in the stars of Hercules?

Globular star clusters appear “fluffy,” round, and dense with stars, similar to a dandelion gone to seed, in contrast to the more scattered and decentralized patterns of open clusters. Open clusters are generally made up of young stars that are gradually spreading apart and found inside our Milky Way galaxy, while globular clusters are ancient clusters of stars that are compact, billions of years old, bound to each other and orbit around our galaxy. Due to their considerable distance, globular clusters are usually only visible in telescopes, but one notable exception is M13, also known as the Great Cluster or Hercules Cluster. During very clear dark nights, skilled observers may be able to spot M13 without optical aid along the border of the Keystone, in between the stars Zeta and Eta Herculis - and a bit closer to Eta. Readily visible as a fuzzy “star” in binoculars, in telescopes M13 explodes with stars and can fill up an eyepiece view with its

sparkling stars, measuring a little over half the diameter of a full Moon in appearance! When viewed through small telescopes, globular clusters can appear orblike and without discernable member stars, similar in appearance to the fuzzy comae of distant comets. That's why comet hunters Edmund Halley and Charles Messier discovered and then catalogued M13, in 1714 and 1764 respectively, marking this faint fuzzy as a "not-comet" so as to avoid future confusion.

While enjoying your view of M13, don't forget to also look for M92! This is another bright and bold globular cluster, and if M13 wasn't so spectacular, M92 would be known as the top celestial sight in Hercules. M92 also lies on the edge of naked-eye visibility, but again, binoculars and especially a telescope are needed to really make it "pop." Even though M92 and M13 appear fairly close together in the sky, in actuality they are rather far apart: M13's distance is estimated at about 25,000 light years from Earth, and M92's at approximately 27,000 light years distant. Since M13 and M92 appear so close together in our skies and relatively easy to spot, switching between these two clusters in your scope makes for excellent star-hopping practice. Can you observe any differences between these two ancient clusters of stars?

Globular clusters are closely studied by astronomers for hints about the formation of stars and galaxies. The clusters of Hercules have even been studied by NASA's space telescopes to reveal the secrets of their dense cores of hundreds of thousands of stars. Find their latest observations of globular clusters - and the universe - at [nasa.gov](https://www.nasa.gov).



## 2022 Star Party Schedule

|              |         |
|--------------|---------|
| February 4   | 5:00 PM |
| March 4      | 5:30 PM |
| April 1      | 7:00 PM |
| April 29     | 8:00 PM |
| May 27       | 8:30 PM |
| July 1       | 8:30 PM |
| July 29      | 8:00 PM |
| August 26    | 7:30 PM |
| September 23 | 6:30 PM |
| October 28   | 6:00 PM |
| November 26  | 4:30 PM |
| December 23  | 4:30 PM |



## 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](http://www.midhudsonastro.org).