



Mid-Hudson Astronomical Association

January, 2020

Website: www.midhudsonastro.org

President : Jack Chastain
Secretary: Jim Rockrohr
Newsletter Editor: Rick Versace
Publicity: Open
Speakers: ?

Directors: Joe Macagne, Steve Carey, Willie Yee, Karl Loatman

groups.io Group: mhaa.groups.io

Vice President: Tim Denman
Treasurer: Eric Myers
Membership Coordinator: Open
Webmaster: ?
Outreach: ?
College Liaison: Dr. Amy Forestell

Minutes of the monthly meeting of the Mid Hudson Astronomical Association, December 2019, 2019

The December meeting was canceled because of bad weather.

Notes from the President:

Officers:

Since the December meeting was postponed and when held, did not have a Quorum, we will vote at the January meeting for all officers listed below. If you will not be able to attend and wish to cast a vote, please email one of the below officers to cast your ballot:

- President: Jack Chastain
- Vice President: Tim Denman
- Secretary: James Rockrohr
- Treasurer: Eric Myers

- Newsletter: Rick Versace
- Publicity: OPEN
- Board members
 - Joe Macagne
 - Steve Carey
 - Willie Yee
 - Karl Loatman

If any paid member would like to email a vote to any of the Officers that will be present, please feel free to do so using only one of the following (I know these people will be present tonight)

president@midhudsonastrol.org
treasurer@midhudsonastro.org
publicity@midhudsonastro.org

If any emailed votes are received before the start of the meeting, then I will endeavour to count them, Alternately, you can locate the email

Annual Dinner:

Final decision on the Dinner Location will be made at the January meeting. Date is (tentatively) January 31 (Friday). A Cocktail hour will be planned.

Issues:

Garvan's is PACKED on Friday/Saturday evenings! If we have more than 10 planning on attending and have to choose Friday night, there MAY be a \$500 room charge for a private room. All this would be confirmed after the meeting and when reservations are made. Easier (for them) is to go on a weekday. Plenty of room, bar and no room charge.

Nu-Cavu is not open - until early February!

We have the choice of returning to changing the date to earlier in the week at Garvins (or paying the room charge), selecting another location or returning to The Would.

Some other opportunities:

East of the River:

Joe Williys Fish Shack

Hudson Ribs and Fish

West of the River

Gunk Haus

Lakeview House (can get private room on 1/31)

Any other thoughts or suggestions, please send them to jack.chastain@gmail.com - I will have more info at the meeting.

January Program:

Karl Loatman: *Date Confusion in The Hudson Valley: Julian vs. Gregorian*

Notes from the Treasurer:

MHAA Treasurer's Report for January 2020

As of 19 January 2020 we have \$2,939.96 in our bank account, with no outstanding checks. That includes one membership renewal via Member Planet. Two more renewals, for \$49.98, are expected to be transferred into the bank account this month.

I have received the bill for our insurance policy, for \$511, due in February. I need to call our broker to see about some small changes to some of the specifics, which I hope will not change the price.

I have succeeded in getting our Pay Pal account listed in my own name, rather than the name of a past-president. It wasn't easy, but it's done.

Annual membership renewals are due for anyone who paid last year in December or January. Last year we switched to using MemberPlanet.com to process payments, and one feature of that site is that it will send out renewal notices individually when it's time. Unfortunately that feature was turned off when the new year started, so many people did not receive renewal notices. I've turned the feature on, and I plan to send out an e-mail reminder to all members before the January meeting.

Dues paid via MemberPlanet are \$27.20, which includes the \$2.21 fee they charge for payment processing. I'm working on restoring the option of paying via Pay Pal, which would only incur a fee of \$1.05. To renew by post you can send me a check for \$25, made out to MHAA (a stamp only costs \$0.55). Or you can renew at our club meeting for \$25 cash or check.

Respectfully Submitted,
Eric Myers
Treasurer

Concerning Membership dues:

Hello, I am the Treasurer for the Mid-Hudson Astronomical Association. I'm writing to remind members that it is (probably) time to renew your membership.

Until last year everyone paid annual dues at the beginning of the year, in January. Last year we switched to a system where you renew your membership one year from the last time you paid. For most of us that is still in January. If you joined this past year after January then you don't yet have to renew, and you should get an e-mail reminder from MemberPlanet.com when the time comes.

Annual dues are \$25. If you come to our next meeting, I can accept cash or a check made out to MHAA. If you would like to pay online instead using MemberPlanet.com the cost is \$27.20 — the additional amount covers the fee they charge for processing. (I'm working on restoring use of PayPal, where the service charge is only about \$1, but that does not seem to work right now.) If you'd like to mail me a check (for \$25) send it to: Eric Myers, Treasurer, Mid-Hudson Astronomical Association, 14 Spy Hill, Poughkeepsie, NY 12601. (A stamp only costs \$0.55.)

What do you get for your membership fee? First, you help support our activities, such as helping to pay for our event insurance (about \$500 per year) and helping to pay for the prizes we awarded last year at the Dutchess County Science Fair. Members can check out a club telescope or imager, or borrow a DVD from our collection. Members can also join our discussion on [MidHudsonAstro.slack.com](https://midhudsonastro.slack.com).

Thank you in advance for renewing your membership (whenever the time comes) and helping to support all of our club activities.

Respectfully,
Eric Myers



Spot the Young Stars of the Hyades and Pleiades

David Prosper

Orion is the last of a trio of striking star patterns to rise during the late fall and early winter months, preceded by the diminutive Pleiades and larger Hyades in Taurus. All three are easily spotted rising in the east in early January evenings, and are textbook examples of stars in different stages of development.

As discussed in last month's Notes, the famous Orion Nebula (M42), found in Orion's "Sword," is a celestial nursery full of newly-born "baby stars" and still-incubating "protostars," surrounded by the gas from which they were born. Next to Orion we find the Hyades, in Taurus, with their distinctive "V" shape. The Hyades are young but mature stars, hundreds of millions of years old and widely dispersed. Imagine them as "young adult" stars venturing out from their hometown into their new galactic apartments. Bright orange Aldebaran stands out in this group, but is not actually a member; it just happens to be in between us and the Hyades. Traveling from Orion to the Hyades we then find the small, almost dipper-shaped Pleiades star cluster (M45). These are "teenage stars," younger than the Hyades, but older than the newborn stars of the Orion Nebula. These bright young stars are still relatively close together, but have dispersed their birth cocoon of stellar gas, like teenagers venturing around the neighborhood with friends and wearing their own clothes, but still remaining close to home - for now. Astronomers have studied this trio in great detail in order to learn more about stellar evolution.



Facing East
January, after sunset
Locate Orion rising in the east after sunset to find the Orion Nebula in the "Sword," below the famous "Belt" of three bright stars. Then, look above Orion to find both the Hyades and the Pleiades. Binoculars will bring out lots of extra stars and detail details in all three objects, but you can even spot them with your unaided eye!

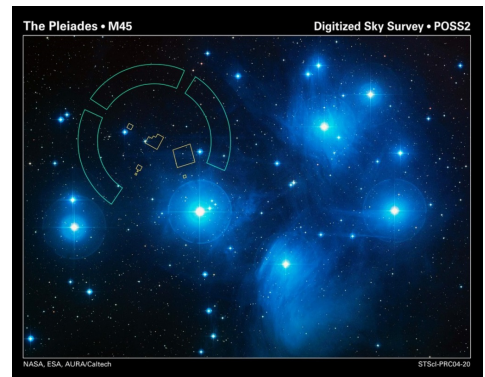
NASA's Hubble Space Telescope indicated a distance of 440 light years, much closer to pre-Hipparcos estimates. Then, using a powerful technique called Very Long Baseline Interferometry (VLBI), which combines the power of radio telescopes from around the world, the distance of the Pleiades was calculated to 443 light years. The ESA's Gaia satellite, a successor to Hipparcos, recently released its first two sets of data, which among other findings show the distance close to the values found by Hubble and VLBI, possibly settling the long-running "Pleiades Controversy" and helping firm up the foundation for follow-up studies about the nature of the stars of the Pleiades.

You can learn more about the Pleiades in the Universe Discovery Guide at bit.ly/UDGMarch , and find out about missions helping to measure our universe at nasa.gov.

Figuring the exact distance of the Pleiades from Earth is an interesting problem in astrometry, the study of the exact positions of stars in space.

Knowing their exact distance away is a necessary step in determining many other facts about the Pleiades. The European Space Agency's Hipparcos satellite determined their distance to about 392 light years away, around 43 light years closer than previous estimates.

However, subsequent measurements by



Close-up of the Pleiades, with the field of view of Hubble's Fine Guidance Sensors overlaid in the top left, which helped refine the distance to the cluster. The circumference of the field of view of these sensors is roughly the size of the full Moon. (C Credit: [NASA](http://nasa.gov), [ESA](http://esa.eu) and AURA/Caltech)

2020 Star Party Schedule

January 24	7:00 PM
February 23	7:00 PM
March 24	7:00 PM
April 22	8:00 PM
May 22	8:00 PM
June 21	8:30 PM
July 20	8:30 PM
August 18	8:00 PM
September 17	7:30 PM
October 16	7:00 PM
November 15	7:00 PM
December 14	7:00 PM

Directions To The Star Party Site

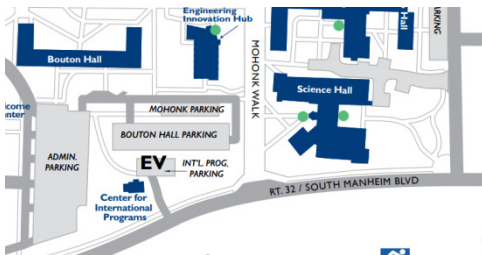
[Lake Taghkanic State Park](#) is in the town Ancram, NY. The park entrance is on the Taconic Parkway 10 minutes north of the exit used for Wilcox park.

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:

- ♦ For the foreseeable future, all indoor meetings will be held on the 3rd Tuesday of each month in the Science Hall Bldg., SUNY New Paltz (directions below) at 7:30 PM. All indoor events are FREE! All are welcome. The presentations are generally geared towards teenagers and up.
- ♦ 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.



The Meeting will be in the Science Hall, SH181 (The square at the South entrance area in the image). The building is at the corner of Rt 32 and Plattekill Ave. Parking is available on the road or possibly in the large Admin parking lot. The Bouton Hall and Mohonk parking are not necessarily recommended, particularly when college is in session. Parking is available on the street as well, and there are a couple spaces on the North West parking on the road - MAKE SURE they are unmarked places though!