



# Mid-Hudson Astronomical Association March, 2021

Website: [www.midhudsonastro.org](http://www.midhudsonastro.org)

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

**President :** Jack Chastain

**Secretary:** Jim Rockrohr

**Newsletter Editor:** Rick Versace

**Publicity:** Tim Denman

**Speakers:** Alexandra Passas

**Vice President:** Tim Denman

**Treasurer:** Eric Myers

**Membership Coordinator:** Rick Versace

**Webmaster:** Steve Dittmar

**Outreach:** Joe Macagne

**College Liaison:** Dr. Amy Bartholomew

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

**The next meeting is March 16<sup>th</sup>, 2021, on Zoom. Check MeetUp for details and link. Link will be sent to all those that RSVP**

## Speaker for March

### Intermediate Astrophotography

Steve Dittmar, MHA Webmaster and amateur astrophotographer, will discuss intermediary astrophotography concepts, products, and lexicon that often confuse beginners when they start looking to advance beyond single frame images of the sky.

Topics will include cameras, guiding, calibration frames, stacking, accessories, etc. with a focus on how they can reduce imperfections in your final image during exposure or in post-processing.

This presentation aims to embolden beginners to recognize the next steps in their astrophotography journey, how to correct some common issues, how to ask the right questions, and how to better understand the answers they might find online.



# Minutes of the monthly meeting of the Mid Hudson Astronomical Association, February 16, 2021

The meeting was called to order at 7:30 PM by President Jack Chastain on the online application Zoom.

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

## Officer's Reports:

**President:** Jack Chastain was present.

- Discussed online star parties.

**Vice President:** Tim Denman was present.

- Discussed publicity.

**Secretary:** Jim Rockrohr was present.

- Nothing new to report.

**Treasurer:** Eric Myers was present.

- Current balance is \$3,605.66 as of February 16.
- There is an additional \$266.43 in PayPal and \$35.00 in petty cash.
- There was a small mistake with the insurance payment; Eric sent it to the insurance agency rather than the insurance company. That has been corrected.
- We are now completely out of MemberPlanet.
- Eric presented his yearend report of income and expenses as required by the bylaws.
- He also presented a proposed budget for 2021. Jack recommended adding \$100 for Science Fair prizes as in past budgets as there will be a virtual science fair this year.
- After discussion, a motion to accept the proposed budget was moved, seconded and approved.
- Eric will send charts to Rick for the next newsletter.

**Newsletter:** Rick Versace was not present.

**Webmaster:** Steve Ditmar was present.

- The new web design is under review and will launch soon. It will cost about \$31.00/month for hosting.

**Upcoming Programs:** Alexandra Passas was present.

- March: Steve Ditmar

**Solar System Ambassador:** Willie Yee was present.

- Perseverance rover lands on Mars February 18. NASA TV will broadcast landing starting at about 2:30 with the landing at about 3:15 PM EST.

## Old Business:

- The last club star party was cancelled due to weather.
- The WGXC radio show went well.

## New Business:

- Should we participate in the virtual Dutchess County Science Fair? Discussion will continue on Slack.
- Various people working on virtual star party planning. Contact Eric Myers and the discussion on Slack.
- Next club star party is on March 12.

## Upcoming Events

- **Next Club Star Party:** March 12 at Lake Taghkanic State park. See MeetUp and YOU MUST RSVP with car make, model and license plate number to attend.

## Observing Reports:

- “Lots of clouds.”

**Visitors/New Members:**

There were about 43 Zoom windows in attendance at the end of the business meeting.

The business meeting was adjourned at 8:00 PM. **The next meeting is March 16<sup>th</sup>, 2021, on Zoom. Check MeetUp for details and link. Link will be sent to all those that RSVP.**

The presentation that followed was by Katie Whitaker, New York State Master Teacher and Meteorologist at Red Hook High School (teaching earth science, meteorology and astronomy): “Meteorology meets Astronomy.” The presentation was live on Facebook and a recording is to be posted on YouTube.

Submitted by James Rockrohr, March 13<sup>th</sup>, 2021.



**MHAA Treasurer’s Report for March 2021**

As of 13 March 2021 we have \$3,561.34 in our bank account and \$266.43 in our PayPal account, with the Treasurer holding \$55 in petty cash. I finally received \$20 from Jack Chastain which someone had donated to the club back in October. I have paid the monthly minimum for our Insurance until the new fiscal year began, but I intend to pay the whole bill in the next cycle. I expect a debit of \$14.99 from Zoom within the next few days.

I just filed form 990-N with the IRS for the 2020 tax year, which should preserve our status as a tax-exempt organization.

Respectfully Submitted,  
Eric Myers  
Treasurer

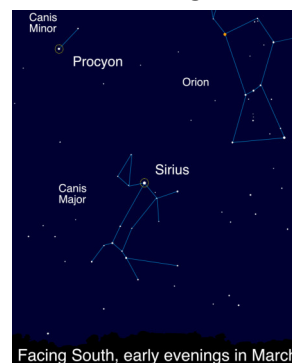


This article is distributed by NASA Night Sky Network

**Taking the Dog Stars for a Springtime Walk: Sirius and Procyon**

David Prosper

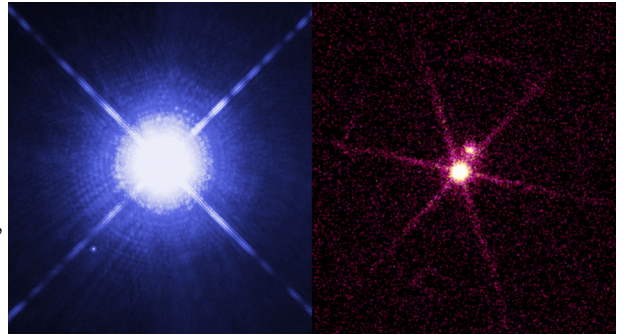
March skies feature many dazzling stars and constellations, glimmering high in the night, but two of the brightest stars are the focus of our attention this month: Sirius and Procyon, the dog stars! Sirius is the brightest star in the nighttime sky, in large part because it is one of the closest stars to our solar system at 8.6 light years away. Compared to our Sun, Sirius possesses twice the mass and is much younger. Sirius is estimated to be several hundred million years old, just a fraction of the Sun’s 4.6 billion years. Near Sirius - around the width of a hand with fingers splayed out, held away at arm’s length - you’ll find Procyon, the 8th brightest star in the night sky. Procyon is another one of our Sun’s closest neighbors, though a little farther away than Sirius, 11.5 light years away. While less massive than Sirius, it is much older and unusually luminous for a star of its type, leading astronomers to suspect that it may “soon” – at some point millions of years from now – swell into a giant star as it nears the end of its stellar life.



*Sirius and Procyon, the loyal hunting dogs of nearby Orion the Hunter! What other stories can you imagine for these stars? Learn about “Legends in the Sky” and create your own with this activity: <https://bit.ly/legendsinthesky> Image created with assistance from Stellarium*

Sirius and Procyon are nicknamed the “Dog Stars,” an apt name as they are the brightest stars in their respective constellations – Canis Major and Canis Minor – whose names translate to “Big Dog” and “Little Dog.” Not everyone sees them as canine companions. As two of the brightest stars in the sky, they feature prominently in the sky stories of cultures around the world. Sirius also captures the imaginations of people today: when rising or setting near the horizon, its brilliance mixes with our atmosphere’s turbulence, causing the star’s light to shimmer with wildly flickering color. This vivid, eerie sight was an indication to ancient peoples of changes in the seasons, and even triggers UFO reports in the modern era!

Both of these bright stars have unseen companions: tiny, dense white dwarf stars, the remnants of supermassive companion stars. Interestingly, both of these dim companions were inferred from careful studies of their parent stars’ movements in the 1800s, before they were ever directly observed! They are a challenging observation, even with a large telescope, since their parent stars are so very bright that their light overwhelms the much dimmer light of their tiny companions. The white dwarf stars, just like their parent stars, have differences: Sirius B is younger, brighter, and more energetic than Procyon B. Careful observations of these nearby systems over hundreds of years have helped advance the fields of: astrometry, the precise measurement of stars; stellar evolution; and astroseismology, the study of the internal structure of stars via their oscillations. Discover more about our stellar neighborhood at [nasa.gov](http://nasa.gov)!



*Sirius A and B imaged by two different space telescopes, revealing dramatically different views! Hubble’s image (left) shows Sirius A shining brightly in visible light, with diminutive Sirius B a tiny dot. However, in Chandra’s image (right) tiny Sirius B is dramatically brighter in X-rays! The “Universe in a Different Light” activity highlights more surprising views of some familiar objects: <http://bit.ly/different-light-nsn> NASA, ESA, H. Bond (STScI), and M. Barstow (University of Leicester) (left); NASA/SAO/CXC (right)*

~~~~~

## 2021 Star Party Schedule

|              |         |
|--------------|---------|
| January 15   | 4:30 PM |
| February 12  | 5:30 PM |
| March 12     | 6:00 PM |
| April 9      | 7:30 PM |
| May 14       | 8:00 PM |
| June 11      | 8:30 PM |
| July 9       | 8:30 PM |
| August 6     | 8:00 PM |
| September 10 | 7:00 PM |
| October 8    | 6:30 PM |
| November 5   | 5:30 PM |
| December 3   | 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).