



Mid-Hudson Astronomical Association

September, 2020

Website: www.midhudsonastro.org

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

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: Open

Webmaster: Steve Dittmar

Outreach: Joe Macagne

College Liaison: Dr. Amy Bartholomew

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

General Meeting on August 15 once again will be held via Zoom. Watch for the link from Meetup.

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### **Minutes of the monthly meeting of the Mid Hudson Astronomical Association, August 18, 2020**

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

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

#### **Officer's Reports:**

**President:** The meeting is being recorded on Zoom. We will be continuing on Zoom for the foreseeable future.

**Vice President:** Tim Denman was present. No news to report.

**Secretary:** Jim Rockrohr was present. No news to report.

**Treasurer:** Eric Myers was present.

- See the newsletter for the latest information.
- We have about \$3,000 in the bank and no debts.

- MeetUp has a “tip jar” feature to collect funds. Eric will check into it.
- T-shirts (\$15), sweatshirts (\$25) and pins (\$4) are available.
- Membership dues of \$25 per year can be paid by cash or check to Eric. Eric has PayPal set up which will cost \$1 more. You can also pay through MemberPlanet for a \$2 charge.

**Publicity:** Tim Denman was present. Middletown Record is giving us good coverage.

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

**Webmaster:** Steve Dittmar was present. No news to report.

**Outreach:** Joe Macagne was not present.

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

- We have programs booked through September and working on future speakers.
- See MeetUp page for the latest information.

**Membership:** (needs leader; Eric is handling it for now but needs help.)

- How to become a member? Read about it under “MORE” on MeetUp.

**Solar System Ambassador:** Willie Yee was present. No news..

#### Old Business:

- The last club star party was an online planetarium show from Raj Pandya. It’s available on FaceBook and SUNY New Paltz’s YouTube channel.
- It was suggested that we waive the dues for the College Laison (Prof. Amy Bartholamew).
  1. Motion was made by Steve Dittmar and seconded by Alex Passas.
  2. Motion carried by unanimous consent.

#### New Business:

- Jack has checked with Taghkanic State Park on rules during Phase 4. We will start live meetings with restrictions on August 21 limited to 50 people with masks and 6’ social distancing.
  - Will try to use imagers and broadcast on Zoom to minimize contact with ‘scopes.
  - If we have more than 50 people, we can split into two (or more) widely spaced groups.
- Club scopes and cameras are available to paid members.
- Indoor meetings are not likely for quite a while due to SUNY guidelines.

#### Upcoming Events

- **Prediction for Aurora on Thursday night (8/20/2020).**
- **Next Club Star Party:** August 21 at Lake Taghkanic State park.
- **Saugerties Science Fair** sometime in October.

#### Observing Reports:

- None reported.

#### Visitors/New Members:

There were about 17 people in attendance on Zoom at the end of the business meeting.

The business meeting was adjourned at 8:00 PM. **The next meeting is September 15<sup>th</sup>, 2020, on Zoom. Check MeetUp for details and link. Link will be sent to all those that RSVP.**

The presentation that followed was by Aileen Toback (local 7<sup>th</sup> grade science teacher) and Matt Pearce (Goddard Institute for Space Studies, GISS): “Bringing NASA into the Classroom”.

Submitted by James Rockrohr, September 10<sup>th</sup>, 2020.



## MHAA Treasurer's Report for September 2020

As of 13 August 2020 we have \$3,196.64 in our bank account, from which \$14.99 is expected to be debited around Tuesday to pay for our monthly Zoom subscription. Paul Chauvet has been paid for Meetup, and we have no other outstanding debts.

We received dues from 3 members since the last report. One of them was someone using the screen name "MonCeros" [sic], but I don't know who this is to give them credit, and email to their address given by PayPal bounced. If this is you, or you know who this is, please let me know.

Respectfully Submitted,  
Eric Myers  
Treasurer



### **Equipment:**

As we try to mention at least once during every meeting, MHAA has an inventory of astronomical equipment (and reference literature) that is available to lend to any "Member In Good Standing" - which really means a dues-paying member.

This month, MHAA was kindly offered, and excepted, a donation of a Meade 10-inch

LX200ACF-GPS telescope, with tripod!

MHAA wishes to gratefully acknowledge Richard and Gill Watt for this donation!

The telescope seems to be in excellent condition, appears to be reasonably well collimated and operates well. There was an issue with the finder scope which has been generally repaired, It may need some software updates (we are looking at doing that) and the micro-focuser is not present. It also has no case but so far, everything else checks out. It comes normally with a single 20mm eyepiece, 90-degree diagonal and little else. Jupiter and Saturn were pretty impressive, but the computer is not getting a good alignment yet – mostly because of the limited viewing area of the initial tests and checks.

Once we have it all checked out, updated and minor issues cleaned up, this wonderful unit will join our equipment list for any member to borrow and use.

– Jack

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### **Remote Viewing:**

In an effort to continue bringing the sky to everyone, MHAA has been experimenting with various methods to present our telescopes "online" - both for remote viewing and for those that are again able to enjoy in-person Star Parties!

We have been able to present on-line Telescope-based viewing with the assistance of Greg Salyer's telescope and software, and we are working with Steve Dittmar and others to get more scopes tied into that methodology.

Recently, we have been experimenting with another method - using cellphones and tablets looking down the eyepiece of the telescope as the "main image" on Zoom sessions. This allows for multiple scope images to be present, and also allows the viewer to individually select and "pin" a particular scope, without forcing other viewers to only see that image - something that Screenshare does.

There's work to be done, and the sensors in cell phones are not expected to be up to the task of presenting any but the brightest objects - Moon, Jupiter, Saturn, Venus, etc. - but more experimentation is being done. We also have used one of the MHAA imaging devices to see Jupiter, Saturn and the moon.

The only real equipment, besides the scope, needed is a phone or tablet holder. Counter-weighting may be required in some cases, but generally, the idea is blossoming into something that could be useful!

If you would like more information on how to participate with Remote Viewing, contact Jack Chastain, Tim Denman or Eric Myers. We are generally available on Slack, but also through Facebook, Meetup and messages through [groups.io](https://groups.io/main@mhaa.groups.io) ([main@mhaa.groups.io](mailto:main@mhaa.groups.io))

-- Jack

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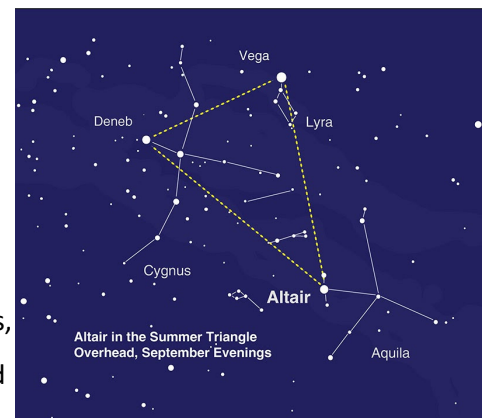
This article is distributed by NASA Night Sky Network

Summer Triangle Corner: Altair

David Prosper

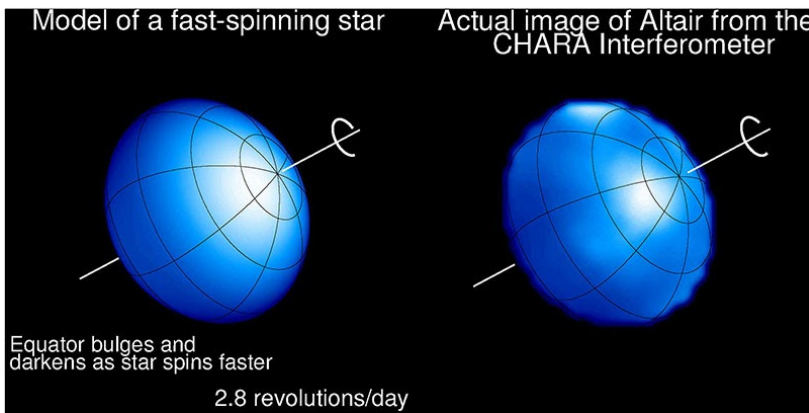
Altair is the final stop on our trip around the Summer Triangle! The last star in the asterism to rise for Northern Hemisphere observers before summer begins, brilliant Altair is high overhead at sunset at the end of the season in September. Altair might be the most unusual of the three stars of the Triangle, due to its great speed: this star spins so rapidly that it appears "squished."

A very bright star, Altair has its own notable place in the mythologies of cultures around the world. As discussed in our previous edition, Altair represents the cowherd Niulang in the ancient Chinese tale of the "Cowherd and the Weaver Girl." Altair is the brightest star in the constellation of Aquila the Eagle; while described as part of an eagle by ancient peoples around the Mediterranean, it was also seen as part of an eagle by the Koori people in Australia! They saw the star itself as representing a wedge-tailed eagle, and two nearby stars as his wives, a pair of black swans. More recently one of the first home computers was named after the star: the Altair 8800.



Altair is up high in the early evening in September. Note Altair's two bright "companions" on either side of the star. Can you imagine them as a formation of an eagle and two swans, like the Koori?

Altair's rapid spinning was first detected in the 1960s. The close observations that followed tested the limits of



technology available to astronomers, eventually resulting in direct images of the star's shape and surface by using a technique called *interferometry*, which combines the light from two or more instruments to produce a single image. Predictions about how the surface of a rapidly spinning massive star would appear held true to the observations; models predicted a squashed, almost "pumpkin-like" shape instead of a round sphere, along with a dimming effect along the widened equator, and the

The image on the right was created using optical interferometry: the light from four telescopes was combined to produce this image of Altair's surface. Image credit: Ming Zhao. More info: bit.ly/altairvsmodel

observations confirmed this! This equatorial dimming is due to a phenomenon called *gravity darkening*. Altair is wider at the equator than it is at the poles due to centrifugal force, resulting in the star's mass bulging outwards at the equator. This results in the denser poles of the star being hotter and brighter, and the less dense equator being cooler and therefore dimmer. This doesn't mean that the equator of Altair or other rapidly spinning stars are actually dark, but rather that the equator is dark in comparison to the poles; this is similar in a sense to sunspots. If you were to observe a sunspot on its own, it would appear blindingly bright, but it is cooler than the surrounding plasma in the Sun and so appears dark in contrast.

As summer winds down, you can still take a Trip Around the Summer Triangle with this activity from the Night Sky Network. Mark some of the sights in and around the Summer Triangle at: bit.ly/TriangleTrip. You can discover more about NASA's observations of Altair and other fast and furious stars at nasa.gov.

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## 2020 Star Party Schedule

|              |         |
|--------------|---------|
| January 24   | 5:00 PM |
| February 21  | 5:30 PM |
| March 27     | 7:00 PM |
| April 24     | 7:30 PM |
| May 22       | 8:00 PM |
| June 19      | 8:30 PM |
| July 17      | 8:30 PM |
| August 21    | 7:30 PM |
| September 18 | 7:00 PM |
| October 16   | 6:00 PM |
| November 13  | 4:30 PM |
| December 11  | 4:30 PM |

## 2021

|            |         |
|------------|---------|
| January 15 | 4:30 PM |
|------------|---------|

## Directions To The Star Party Site

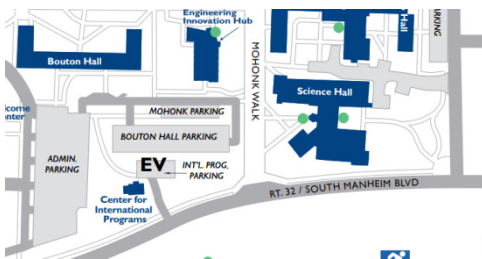
[Lake Taghkanic State Park](#) is in the town Ancram, NY. The park entrance is on the Taconic Parkway 10 minutes north of the exit used for Wilcox park.

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:

- ♦ For the foreseeable future, all indoor meetings will be held on the 3<sup>rd</sup> 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](http://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!