



Mid-Hudson Astronomical Association

January, 2014

Website: www.midhudsonastro.org

Yahoo Group: MHAstro

President : Willie Yee
Secretary: Jim Rockrohr
Newsletter Editor: Rick Versace
Publicity: Paul Chauvet
Parks Liaison:

Vice President: Joe Macagne
Treasurer: Ken Bailey
Membership Coordinator: Caryn Sobel
Webmaster: Paul Chauvet
College Liaison: Dr. Amy Forestell

Directors: Steve Carey, Dave Lindemann, Karl Loatman, & Tom Rankin

Meeting Minutes

Minutes of the monthly meeting of the Mid-Hudson Astronomical Association, December 19, 2013.

-The meeting was called to order at 7:30 PM by President Willie Yee in Lecture Center Room 104 at SUNY, New Paltz, NY. The minutes of the previous meeting were approved as published in the newsletter.

Officer's Reports:

Membership: Caryn Sobel was not present.

Treasurer's Report:

Treasurer's Report for the month of December

Date: 18 January, 2014

Bank Balance: \$2575.35
Outstanding Checks: \$ 110.00
Outstanding Deposits: \$ 150.00
Ending Bank Balance: \$2615.35

Checkbook Balance: \$2615.35
Balance with Bank: Yes

Ending balance total: \$2615.35

Notes: Outstanding check is for Speaker's Honorarium and reimbursement. The outstanding deposit is from membership dues. After completing the Treasurer's Report, I have also issued a check for \$25.00 to the NY State Parks Department for the 2014 Permit for use of Taghkanic State Park for star parties.

Respectfully submitted: Ken Bailey
Treasurer

Outreach: Candace Wall

Upcoming events include:

- Garrison School is looking for a presentation and star party on Thursday, January 16. Candace will solicit volunteers on the Yahoo list.
- An outreach reach event on the Rosendale Rail Bridge that would coincide with the April 15 total lunar eclipse was discussed. Possible multiple events to observe the eclipse at the Walkway Over the Hudson and the New Paltz Observatory were mentioned.

Publicity: Paul Chauvet is soliciting input on upcoming activities to publicize.

Webmaster: Sean Dague was not present.

Upcoming programs: Joe Macagne

- January will be "Spectroscopy for Amateurs" by Tom Field. We have openings for speakers for the rest of the year.

Old Business:

Video Library: Ken hopes to have the library catalog online by next week.

Club Telescopes:

13.1" Telescope: Jack Chastain has it.

8" Dynamax SCT: Willie Yee has it and it is available to paid members.

6" Bausch & Lomb SCT: Tom Crepet has it and it is available to paid members.

4" Tasco Newtonian: Paul Chauvet has it and is using it.

-There is a 10" home built Dobsonian available to be donated to the club.

-Our next star party will be on December 27.

New Business:

Election of 2014 officers:

They are as follows

President: Willie Yee

Vice President: Joe Macagne

Secretary: Jim Rockrohr

Treasurer: Ken Bailey

Newsletter Editor: Rick Versace

Membership Coordinator: Caryn Sobel

Publicity: Paul Chauvet

Outreach Coordinator: Candace Wall

Webmaster: Paul Chauvet
Parks Liaison: (open)
College Liaison: Dr. Amy Forestell
Directors: Steve Carey, Dave Lindemann, Karl Loatman, Tom Rankin.

Night Sky Network Awards:

-We need eight. The first 3 are free. Additional ones are \$2.00 each. A motion was made and seconded to purchase five additional awards.

High Point Shopping Spree:

-Our annual shopping trip will take place on January 25 with a back up date of February 1.

Winter Dinner:

-Where and when to have our annual winter dinner was discussed. The Would Bar and Grill was mentioned as a possibility. It was decided that further discussion could take place on the club's Yahoo list.

Visitors/New Members:

- No visitors introduced themselves. There were about 18 people present for the meeting.
- The meeting was adjourned at 8:00 PM.
- The program that followed were member talks by Paul Chauvet, Rick Versace, and a Star Trek video was shown by President Yee.

Submitted by Paul G, January 20, 2014.

From the President:

The Astronomical League

The Astronomical League is a consortium of many astronomy societies across the country. Its purpose is to promote the science of astronomy. They do this through a variety of programs, which you can get information about on their website <http://www.astroleague.org>.

Many people are active in their Observing "Clubs." There are dozens of these, each with an observing or activity list, required documentation, and a certificate and pin for completing the list. There are programs for nearly every interest: DSOs, planets, lunar and solar, NEO, DSO types, e.g. Globular Clusters. There are awards for Outreach and Advocacy. Although some folks do not like working from lists, and others slavishly run through one after the other, the rest of us find them a useful program to guide our viewing, get into new areas, and set personal challenges. Completing, or even seriously attempting most of these programs will make one a better observer. Programs range from easy (although many of the "easy" ones require prolonged or repeated observation) to difficult, and are categorized by amount of equipment needed.

The Astronomical League publishes a quarterly news magazine. I will try to bring some copies to the next few meetings. In addition to covering the activities of the AL, there are articles on many aspects of observing. While not as slick as the commercial magazines, and the writing is of varying quality, it has the feel of something written by one of us—folks that do our own observing and photography.

There are any number of projects that the AL supports or is involved with. One very concrete recent project is the Harvard Plate Project. Members are transcribing information for photographic plates taken for over a century by the Harvard observatories. Since this involves hundreds of thousands of plates, it is the sort of project that is ideal for crowd-sourcing.

One can join by either being a member of a participating club, or as an individual member. Two nearby clubs are participating clubs: the Rockland Astronomy Club and the Amateur Observers Society of New York. Why is MHAA not a member? There is a substantial fee per club member to join.

The AL website is huge, with all the projects and resources that are available there. You do not need to be a member to access the site or its materials. It is worth checking out.

Dr. Willie K. Yee, President MHAA



Surprising Young Stars in the Oldest Places in the Universe

By Dr. Ethan Siegel

Littered among the stars in our night sky are the famed deep-sky objects. These range from extended spiral and elliptical galaxies millions or even *billions* of light years away to the star clusters, nebulae, and stellar remnants strewn throughout our



own galaxy. But there's an intermediate class of objects, too: the *globular star clusters*, self-contained clusters of stars found in spherically-distributed halos around each galaxy.

Back before there were any stars or galaxies in the universe, it was an expanding, cooling sea of matter and radiation containing regions where the matter was slightly more dense in some places than others. While gravity worked to pull more and more matter into these places, the pressure from radiation pushed back, preventing the gravitational collapse of gas clouds below a certain mass. In the young universe, this meant no clouds smaller than around a few hundred thousand times the mass of our Sun could collapse. This coincides with a globular cluster's typical mass, and their stars are some of the oldest in the universe!

These compact, spherical collections of stars are all less than 100 light-years in radius, but typically have around 100,000 stars inside them, making them nearly 100 times denser than our neighborhood of the Milky Way!

The vast majority of globular clusters have extremely few heavy elements (heavier than helium), as little as 1% of what we find in our Sun. There's a good reason for this: our Sun is only 4.5 billion years old and has seen many generations of stars live-and-die, while globular clusters (and the stars inside of them) are often *over 13 billion years old*, or more than 90% the age of the universe! When you look inside one of these cosmic collections, you're looking at some of the oldest stellar swarms in the known universe.

Yet when you look at a high-resolution image of these relics from the early universe, you'll find a sprinkling of hot, massive, apparently *young* blue stars! Is there a stellar fountain of youth inside? Kind of! These massive stellar swarms are so dense -- especially towards the center -- that mergers, mass siphoning and collisions between stars are quite common. When two long-lived, low-mass stars interact in these ways, they produce a hotter, bluer star that will be *much* shorter lived, known as a *blue straggler star*. First discovered by Allan Sandage in 1953, these young-looking stars arise thanks to stellar cannibalism. So enjoy the brightest and bluest stars in these globular clusters, found right alongside the oldest known stars in the universe!

Learn about a recent globular cluster discovery here: <http://www.nasa.gov/press/2013/september/hubble-uncovers-largest-known-group-of-star-clusters-clues-to-dark-matter>.

Kids can learn more about how stars work by listening to The Space Place's own Dr. Marc: <http://spaceplace.nasa.gov/podcasts/en/#stars>.

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 Coykendall Science Bldg., SUNY New Paltz (directions above) at 7:30 PM. All indoor events are FREE! All are welcome. The presentations are generally geared towards teenagers and up. For more information, call the Club Hotline.
- ♦ 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. Call the Club Hotline for updated information. Everyone should meet at the gate at the scheduled time. The gate will be closed after that time.
- ♦ 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.