



Mid-Hudson Astronomical Association

November, 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, October 21, 2014

The meeting was called to order at 7:31 PM by President Willie Yee in the Coykendall Auditorium at SUNY, New Paltz, NY.

It was moved and seconded that the minutes of the last meeting as published in the newsletter be approved. The motion passed.

Officer's Reports:

Membership: Caryn Sobel was not present.

Treasurer: Ken Bailey present. See his report in the newsletter.

Treasurer's Report for the month of October

Date: 15 November, 2014

Bank Balance:	\$1399.77
Outstanding Checks:	\$ 273.80
Outstanding Deposits:	\$ 100.00
Ending Bank Balance:	\$1225.97

Checkbook Balance:	\$1225.97
Balance with Bank:	Yes

Ending balance total: \$1225.97

Notes: Outstanding checks are a reimbursement and speaker's honoraria. Outstanding deposit is from the Girl Scouts.

Respectfully submitted: Ken Bailey
Treasurer

Outreach: Candace Wall reported on upcoming events:

- **Saugerties High School:** 10/24 (rain date TBD in November) Ken Bailey coordinating with Rick and Karen.
- **Fishkill Plains Elementary School:** 10/24. Ellie Lopatinsky coordinating. Willie Yee, Jack Chastain, and Jim Rockrohr attending with 'scopes.
- **Olana events (Willie organizing):**
 - o Saturday, November 15: viewing, no set program.
- **Tivoli Free Library:** (Ken Bailey coordinating) December 12, Library members only.
- A motion was made and seconded to change the date of our October Star Party from Friday, 10/24, to Saturday, 10/25, to avoid conflicts with the above scheduled outreach projects. It was approved.

Publicity: Paul Chauvet present. He asked for input on any public events to advertise.

Webmaster: Paul Chauvet present. No issues reported.

Upcoming programs: Joe Macagne present.

- November – Gene Hirschel will talk about the "Herschel Telescope".
- December – Maybe the latest Star Trek Phase II episode; "Mind Sifter", or club speakers.
- We need speakers. If you have any ideas or leads, let Joe or Willie know.

Old Business:

- Club Library – Ken has the library if any paid member wants to check out a video.
- Club Inventory – Willie posted this in the Files section of the MHASTRO Yahoo Group.
- Club telescopes:
 - o **13.1" Dobsonian Club Telescope:** Jack Chastain has it and will bring it to club events.
 - The main mirror needs recoating. A motion was made, seconded, and approved to authorize Jack to spend up to \$225. Jack will research options. (Nova Optics was recommended from the floor.)
 - o **8" Dynamax SCT:** Joe Macagne has it and it is available to paid members.
 - o **6" Bausch & Lomb SCT:** Tom Crepet has it and it is available to paid members.
 - o **4" Tasco Newtonian:** Paul Chauvet has it and is using it.
 - o **8" Newtonian on EQ mount:** Karl Loatman is looking for a motor drive for it.

New Business:

- **Elections** – Paul Chauvet was selected as the nominating committee to present a slate of nominations at the next meeting.

Visitors/New Members:

No visitors introduced themselves. There were a total of about 11 people present for the meeting.

Observing Reports:

- Olana, September 21 – small turnout, dodging clouds.
- Starry Night on the Walkway, September 26 – went well. About 100 people looked through the scopes.
- Rosendale Bridge, October 3 – it happened, sort of. Set up scopes in the parking lot. About 20 people came around, but clouds.
- Willee and Joe had a good viewing of the Lunar Eclipse at Minnewaska until just after totality.

The meeting was adjourned at 7:57 PM. Next meeting is on November 18.

The program that followed was the showing of “Gravity” from the “Through the Wormhole” series.

Submitted by James Rockrohr, November 14, 2014.

From the President:

AN AOS CELEBRATION

Last month I discussed the Amateur Observer's Society of Long Island (which I mis-named the Astronomical Observer's Society). On Saturday November 1st 2014 was the celebration of the 10th anniversary of the Susan F. Rose observatory at Custer Institute <http://custerobservatory.org>.

The day before I had a brief appearance with George Takei (Mr. Sulu from Star Trek) on the Meredith Viera show in the morning https://www.youtube.com/watch?v=yReLqJCek_o. In the afternoon Liz and I had lunch before going to the Cradle of Aviation Museum in Garden City, Long Island <https://www.cradleofaviation.org>. We got to the museum to find out that all the shows, which our passes would have entitled us to stopped at 2 PM, but the ticket taker let us in to walk around the museum, and we can use our passes later. We were the only people in the museum, so we got personal tours from the volunteer guides for the aviation and the space sections. Lots of historic airplanes, and an actual lunar landing module that was intended for Apollo 19 but never used and a full size model of Sputnik.

Sunday was a windy, rainy, cold and miserable day. The drive from Liz' apartment in East Meadow to Custer Institute is about 1 ½ hours. We got there just in time to hear a talk on amateur radio astronomy. This was followed by a slide show of the construction of the AOS observatory (now the Susan F. Rose Observatory) 10 years ago. The observatory is built around a pier of concrete going 15 feet down, that was originally built to support a secret camera set up to track Sputnik. After that show, we had a catered dinner, and spent time schmoozing and checking out the observatories and their equipment, including the Sputnik camera and the 25 inch Obsession dob. While talking with various AOS members I was discussing Star Trek, and Sue Rose wanted to show me something that the observatory had. In the back of the coat rack was a red Next Generation jersey. Turns out a previous member had left it behind, and it has been sitting there for years. As I was examining it, Bill Bogardus, the president of Custer, told me to go ahead try it on to see if it fit. It did. After I had it on, he told me I should take it; a contribution to the observatory would be nice. Faster than Riker could draw a phaser I had my wallet out and was stuffing money into the contribution jar. Now have four Star Trek uniform tops, all different.

So, what looked to be a good weekend turned into a fabulous one. And the Steelers beat the Ravens on Sunday night football.

Some additions from Sue Rose to last month's report:

NASA funded MAUS for 4 yrs and The LI Sierra Club for 1.

For the public, the SRO is open on clear Sat nights, the Nature Center once a month.

The Stargazing permit allows anyone to use the state parks. Our arrangement with the Nature Center is we can use it apart from the public at no charge.

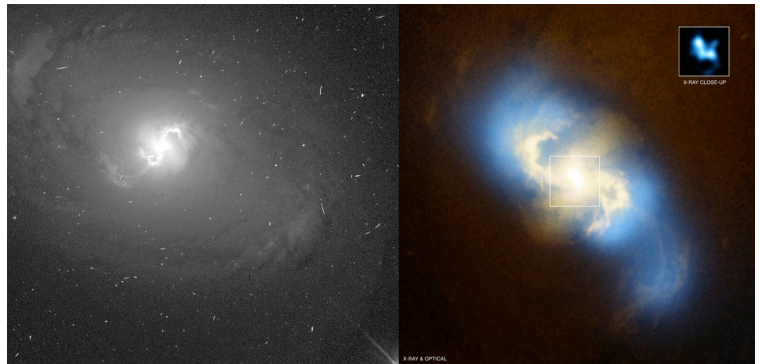


Where the Heaviliest of Showers Come From

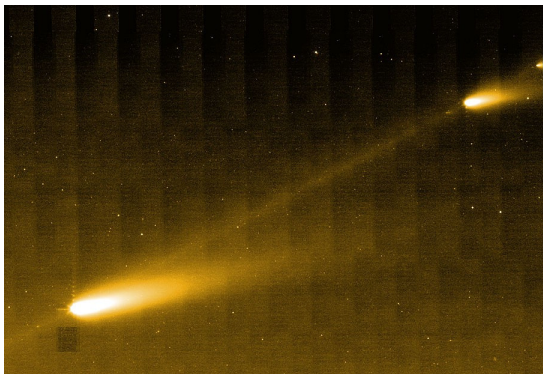
By Dr. Ethan Siegel

You might think that, so long as Earth can successfully dodge the paths of rogue asteroids and comets that hurtle our way, it's going to be smooth, unimpeded sailing in our annual orbit around the sun. But the meteor showers that illuminate the night sky periodically throughout the year not only put on spectacular shows for us, they're direct evidence that interplanetary space isn't so empty after all!

When comets (or even asteroids) enter the inner solar system, they heat up, develop tails, and experience much larger tidal forces than they usually experience. Small pieces of the original object—often multiple kilometers in diameter—break off with each pass near the sun, continuing in an *almost* identical orbit, either slightly ahead-or-behind the object's main nucleus. While both the dust and ion tails are blown well off of the main orbit, the small pieces that break off are stretched, over time, into a diffuse ellipse following the same orbit as the comet or asteroid it arose from. And each time the Earth crosses the path of that orbit, the potential for a meteor shower is there, *even after* the parent comet or asteroid is completely gone!



This relationship was first uncovered by the British astronomer John Couch Adams, who found that the Leonid dust trail must have an orbital period of 33.25 years, and that the contemporaneously discovered comet Tempel-Tuttle shared its orbit. The most famous meteor showers in the night sky all have parent bodies identified with them, including the Lyrids (comet Thatcher), the Perseids (comet Swift-Tuttle), and what promises to be the best meteor shower of 2014: the Geminids (asteroid 3200 Phaethon). With an orbit of *only* 1.4 years, the Geminids have increased in strength since they first appeared in the mid-1800s, from only 10-to-20 meteors per hour up to *more than 100* per hour at their peak today! Your best bet to catch the most is the night of December 13th, when they ought to be at maximum, before the Moon rises at about midnight.



The cometary (or asteroidal) dust density is always greatest around the parent body itself, so whenever it enters the inner solar system and the Earth passes near to it, there's a chance for a **meteor storm**, where observers at dark sky sites might see *thousands* of meteors an hour! The Leonids are well known for this, having presented spectacular shows in 1833, 1866, 1966 and a longer-period storm in the years 1998-2002. No meteor storms are anticipated for the immediate future, but the heavenliest of showers will continue to delight skywatchers for all the foreseeable years to come!

Image credit: NASA / JPL-Caltech / W. Reach (SSC/Caltech), of Comet 73P/Schwassman-Wachmann 3, via NASA's Spitzer Space Telescope, 2006

What's the best way to see a meteor shower? Check out this article to find out: <http://www.nasa.gov/jpl/asteroids/best-meteor-showers>.

Kids can learn all about meteor showers at NASA's Space Place: <http://spaceplace.nasa.gov/meteor-shower>.

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.