



Mid-Hudson Astronomical Association

August, 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, July 15, 2014

The meeting was called to order at 7:33 PM by President Willie Yee in Lecture Center Room 102 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. As of July 1, the dues for new memberships for the remainder of 2014 are half price (\$12.50).

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

Treasurer's Report for the month of July

Date: 17 August, 2014

Bank Balance:	\$1063.58
Outstanding Checks:	\$ 182.91
Outstanding Deposits:	\$ 175.00
Ending Bank Balance:	\$1055.67
Checkbook Balance:	\$1055.67
Balance with Bank: Yes	
Ending balance total:	\$1055.67

Notes: Outstanding deposit is from Olana and the Moffat Library at Washingtonville. Outstanding checks are a reimbursements.

Respectfully submitted: Ken Bailey
Treasurer

Outreach: Candace Wall.

Upcoming events include:

- **Grey Fox:** July 17-20. Paul Granich coordinating.
- **Olana events (Willie organizing):**
 - o Saturday, August 16, 2 PM (?), Sun Tour (weather date August 17). Willie can use some help.
 - o Sunday, September 21, 7-9 PM (no weather date)
- **Rosendale Bridge** (Tom Rankin coordinating) Dates TBD.
- **Rockland Star Party:** 7/25-8/3
- **Globe at Night:** 7/16-25
- **Tivoli Free Library:** 8/15. Ken Bailey coordinating.
- **Saugerties High School:** 10/10 (rain date 10/17) Ken Bailey coordinating.
- **Fishkill Plains Elementary School:** 10/24. Ellie Lopatinsky coordinating.

Publicity: Paul Chauvet. Reminder to send him an email with complete information if you want your event publicized.

Webmaster: Paul Chauvet. All OK.

Upcoming programs: Joe Macagne

- 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. We will order the recent Cosmos TV series on DVD. A listing of all of the videos in the library will be posted on the Meetup Page under “More – Files”
- Club Inventory – Willie reviewed what he has with the group. He will post this on the meetup site when complete.
- Club telescopes:

- **13.1" Dobsonian Club Telescope:** Jack Chastain has it and will bring it to club events.
- **8" Dynamax SCT:** Joe Macagne 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.
- **10" 8" Newtonian on EQ mount:** Karl Loatman helping Candace. He cleaned it. It is a Celestron C8N with a CG5 manual mount. The drive motor kit has been discontinued, but he may be able to find one online.

New Business:

- Ken reports that he needs to order new checks.

Visitors/New Members:

No visitors introduced themselves. There were a total of about 17 people present for the meeting.

Observing Reports:

- Indoor lecture at Millbrook library by Ken Bailey on 7/7.
- Olana summer camp star party on 7/8. Willie provided 'scopes. About 13 kids participated.

The meeting was adjourned at 7:55 PM. Next meeting is on August 19.

The program that followed was a talk by Willie Yee: **"Everything about the Moon, and More"**.

Submitted by James Rockrohr, August 17, 2014.

From the President:

Grey Fox 2014

Last year, I described Grey Fox as the nearly perfect outreach situation. Big crowds with easy access to dark skies, and a supportive host. that was last year.

Starting on a positive note, the public was great. Even the clearly intoxicated few were well behaved, and the kids mostly under control. And they were all very appreciative of what could be seen on various days and nights. Everywhere you went, folks were very friendly. The music was great, and even if you are not a serious bluegrass fan, it is infectious and a lot of fun.

Our own personal experience as club members was something else though. It began on Wednesday when I got a call from Paul warning me not to expect things to go smoothly at the gate. I loaded up an extra dose of patience along with my gear and arrived about 4:00 PM. Paul had told me to tell them I was in the "guest book" when I arrived, but I was shuttled into a line before I could open my mouth. The road was very rough and my Prius bottomed out two or three times. I then sat in line for half an hour during the latter half of which I told the same story three or four times to the parking folk, and explained why I did not need a parking sticker and that I was in the guest book. The line was 5 cars wide, so I couldn't get out. When I got to the front, they sent me to the sign-in tent, which was ten feet from where they had turned me to put me in the line that I did not need to be in.

It took some fumbling to find me in the book.. After twenty minutes of waiting and two phone calls to the guy who was supposed to accompany me to the MHAA site I called Paul, who told me to leave the car there, as they were not allowing access to the site. Several more phone calls were made. I was at one checkpoint where the fellow said he had

gotten a call saying to let us up to the site. I spun around so quickly I nearly broke Paul's neck, to get back to my car and up the hill before somebody changed their mind. I drove my Prius to the site and parked it without a problem, even though everyone else was being told that they could not drive up there, and had to shuttle their stuff by hand, or wait for a golf cart (which usually did not show up).

Paul and Rick explained the troubles they had been having since Tuesday night. The MHAA canopy could not be set up, since it was on Rick's trailer, which the organizers would not let us bring up. At some point I heard that they were not going to let Dave Rosseter bring up his trailer, which he had driven all the way from Charlottesville, VA, with the 35" telescope. That was about the point that my extra dose of patience ran out.

Thursday was partly cloudy, and we did get some solar viewing shared (and wouldn't you know it, there were ZERO sunspots visible for the first time since I started solar viewing) and some viewing in the evening. Crowds, as expected, were still pretty light at that point.

Early in the evening, a woman came by to ask how we were doing and if we needed anything. I explained how we needed our 25" telescope, and permission to have access to the site, which I had already shown was possible. Paul, whose patience had run out long before mine, unloaded on her, which I cannot blame him for, but I felt badly because this was the first person who actually seemed like she wanted to be helpful to us.

On Thursday, they managed to bring up Rick's trailer, so we were able to get the canopy up and stocked with literature, etc. Candace and Peter did yeoman work in setting up, organizing and staffing the booth. Dave arrived on Thursday. I guess word had gotten to him that he would not be able to bring the big telescope up. He was pretty gracious about it, and did set up a small scope.

On Friday, Chuck arrived, I was told he had been there earlier, but went back home when he found he wouldn't be able to drive in to deliver his equipment. We found him pulling up huge heavy loads of equipment by himself on a hand truck. It took him a half a dozen trips, and at that point they would not even allow him to drive halfway up the hill to deliver his stuff. In addition, the organizers had changed the name of his talk, and Chuck, trying to be compliant, had gone and changed his whole presentation to match what was in the program. He had told the organizers that he would need to load his stuff up on Saturday morning so he could spend the afternoon with his kids, and leave immediately after his presentation.

Friday evening was when I was supposed to give my presentation. Even though it was on the sun, TPTB decided to put me on the schedule at 7:45 PM, at which point no solar observation would be possible. The groups previous to me had gone overtime, so I was about a half an hour late getting started. I had barely begun the presentation when kids started piling in to see the movie that was to follow me, I had to literally shout myself hoarse to be heard, so I shortened my presentation and got out of there.

We were able to do some observing marred by some of the poorly directed bright lights. At this point the atmosphere was so poisoned we did not even bring it up, because we had been made to feel like everything we wanted was an imposition on them.

It was cloudy that evening and the next day. The forecast did not look encouraging, so I started packing up to leave. Chuck's ride to out load his stuff never came, and he got so disgusted he left without doing his presentation, again carrying all his stuff out by hand. I spent the afternoon with Liz, who came up to hear the music. I left early in the evening, without asking anyone's permission to drive off the field.

Next year? If the weather is good, things could go better. And there are some things we could do to improve our part in this. But at this point, I do not have the energy or inclination to do so.





Droughts, Floods and the Earth's Gravity, by the GRACE of NASA

By Dr. Ethan Siegel

When you think about gravitation here on Earth, you very likely think about how constant it is, at 9.8 m/s^2 (32 ft/s^2). Only, that's not quite right. Depending on how thick the Earth's crust is, whether you're slightly closer to or farther from the Earth's center, or what the density of the material beneath you is, you'll experience slight variations in Earth's gravity as large as 0.2%, something you'd need to account for if you were a pendulum-clock-maker.

But surprisingly, the amount of *water content* stored on land in the Earth actually changes the gravity field of where you are by a significant, measurable amount. Over land, water is stored in lakes, rivers, aquifers, soil moisture, snow and glaciers. Even a change of just a few centimeters in the water table of an area can be clearly discerned by our best space-borne mission: NASA's twin Gravity Recovery and Climate Experiment (GRACE) satellites.

Since its 2002 launch, GRACE has seen the water-table-equivalent of the United States (and the rest of the world) change significantly over that time. Groundwater supplies are vital for agriculture and provide half of the world's drinking water. Yet GRACE has seen California's central valley and the southern high plains rapidly deplete their groundwater reserves, endangering a significant portion of the nation's food supply. Meanwhile, the upper Missouri River Basin—recently home to severe flooding—continues to see its water table rise.

NASA's GRACE satellites are the only pieces of equipment currently capable of making these global, precision measurements, providing our best knowledge for mitigating these terrestrial changes. Thanks to GRACE, we've been able to quantify the water loss of the Colorado River Basin (65 cubic kilometers), add months to the lead-time water managers have for flood prediction, and better predict the impacts of droughts worldwide. As NASA scientist Matthew Rodell says, "[W]ithout GRACE we would have no routine, global measurements of changes in groundwater availability.

Other satellites can't do it, and ground-based monitoring is inadequate." Even though the GRACE satellites are nearing the end of their lives, the GRACE Follow-On satellites will be launched in 2017, providing us with this valuable data far into the future. Although the climate is surely changing, it's water availability, *not* sea level rise, that's the largest near-term danger, and the most important aspect we can work to understand!

Learn more about NASA's GRACE mission here:

http://www.nasa.gov/mission_pages/Grace/

Kids can learn all about launching objects into Earth's orbit by shooting a (digital) cannonball on NASA's Space Place website. Check it out at:

<http://spaceplace.nasa.gov/how-orbits-work/>

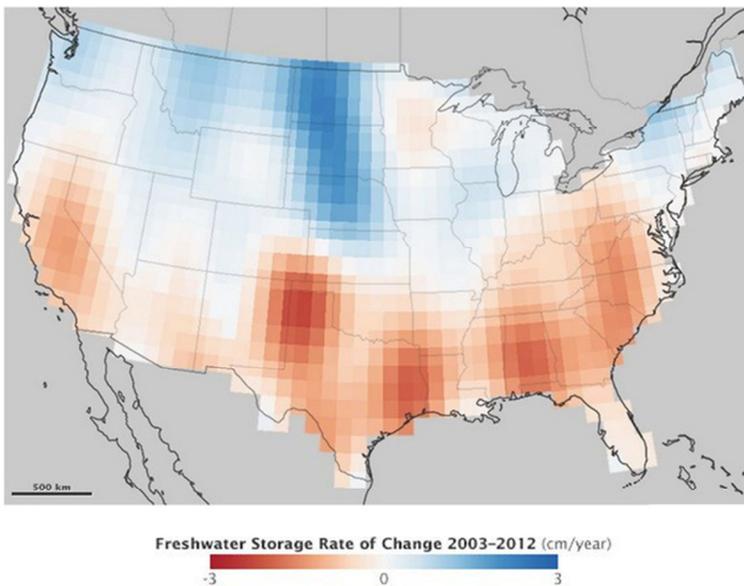


Image credit: NASA Earth Observatory image by Jesse Allen, using GRACE data provide courtesy of Jay Famigleitti, University of California Irvine and Matthew Rodell, NASA Goddard Space Flight Center. Caption by Holli Riebeek.

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.