



Mid-Hudson Astronomical Association

June, 2013

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: Sean Dague
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, May 21, 2013

The meeting was called to order at 7:30 PM by President Willie Yee in the auditorium of the Coykendall Science Building at SUNY, New Paltz, NY.

The minutes of the previous meeting were approved as published in the newsetter.

Officer's Reports:

Membership: Caryn Sobel reported that 2 renewals were received since last month. There are 31 paid memberships, 4 life members, and 9 advocates for 2013, so far. She reported that she has sent a reminder email to all 2012 members that have not yet renewed. It was noted that the PayPal button on the Meetup site is not working. Caryn contacted Sean Dague and he provided the merchant address to use until the button is fixed. Caryn will also be adding "paid member" to the Meetup member pages.

Treasurer: Ken Bailey gave his report.

Treasurer's Report for the month of May

Date: 15 June, 2013

Bank Balance:	\$2753.91
Outstanding Checks:	\$
Outstanding Deposits:	\$ 50.00
Ending Bank Balance:	\$2803.91

Checkbook Balance:	\$2803.91
Balance with Bank:	Yes

Outstanding checks since end of month: \$0.00
Outstanding deposits since end of month: \$50.00
Ending balance total: \$2803.91
Notes: None.

Respectfully submitted: Ken Bailey
Treasurer

Outreach:

Upcoming events include:

There will be an MHAA presence at the Grey Fox music festival again this year, July 18-21. Paul Granich reported that he has several people already signed up to help. He is looking for more help, especially for setup, take down, and to work the information booth during the day. Watch Yahoo and MeetUp for details.

Publicity: Paul Chauvet reported that he will be promoting the next few months' speakers and has copies of a brochure available for distribution.

Webmaster: Sean Dague was not present.

Upcoming programs: Joe M. reported that the June meeting's speaker will be Amy Forestall speaking on comets. Chris Kendall will be speaking at the July meeting on the Antarctica telescopes and Jeff Nolan will be speaking in August about filters.

Old Business:

Beginners Workshops: Joe Macagne is looking to organize a small group to plan and execute a series of workshops on how to get started in the astronomy hobby and to help beginners. See him if you would like to help. Joe is coordinating these with the SUNY planetarium presentation schedules.

Video Library: Ken Bailey reported some progress on organizing the library and hopes to have it complete by the next meeting.

12" Club Telescope: Karl Loatman is willing to work on getting the telescope back in working order.

Other Club telescopes: Paul Chavet has the 4" and is using it. There is a 10" home built Dobsonian available to be donated to the club if the club is interested.

Walkway Solar System Model: Willie is working on a presentation to make to the walkway organization.

Solar Sunglasses: They have arrived and have been "stickered" and are being handed out at events.

New Business:

Star party Etiquette: Apparently there were some complaints about language and cigar smoking at the last star party. There is a standing rule that there is no smoking on the observing field. It was suggested that a short article about star party etiquette be posted on the Meetup site.

Membership List: There is currently no policy regarding the distribution of the membership list. After some discussion it was decided to mark each person's entry on Meetup as "paid" (if they are current) and if they are an officer. Please check your listing to be sure it is accurate. Access to the membership's paid status is needed for those events that are only open to paid members.

A representative from the Haviland School was attending and presented a donation to the club for presenting a very well received star party last month.

Ken Bailey read a thank you letter from the Boy Scout Troop that attended our last star party at Lake Taghanic.

There was a discussion about making the newsletter available as a document on the Yahoo file section. It was agreed that this could be done about 1 week after normal email publication to the paid members. There was also a discussion about putting up a monthly reminder on the Meetup site to appeal for paid memberships to support the club.

The meeting was adjourned at 7:58 PM.

The program that followed was a talk by Steve Bellavia, Principal Mechanical Engineer for the Large Synoptic Survey Telescope (LSST) camera currently under development.

Submitted by James Rockrohr, June 16, 2013.



High-energy Spy

By Dr. Martin C. Weisskopf

The idea for the Chandra X-Ray Observatory was born only one year after Riccardo Giacconi discovered the first celestial X-ray source other than the Sun. In 1962, he used a sounding rocket to place the experiment above the atmosphere for a few minutes. The sounding rocket was necessary because the atmosphere blocks X-rays. If you want to look at X-ray emissions from objects like stars, galaxies, and clusters of galaxies, your instrument must get above the atmosphere.

Giacconi's idea was to launch a large diameter (about 1 meter) telescope to bring X-rays to a focus. He wanted to investigate the hazy glow of X-rays that could be seen from all directions throughout the sounding rocket flight. He wanted to find out whether this glow was, in fact, made up of many point-like objects. That is, was the glow actually from millions of X-ray sources in the Universe. Except for the brightest sources from nearby neighbors, the rocket instrument could not distinguish objects within the glow.

Giacconi's vision and the promise and importance of X-ray astronomy was borne out by many sounding rocket flights and, later satellite experiments, all of which provided years-, as opposed to minutes-, worth of data.

By 1980, we knew that X-ray sources exist within all classes of astronomical objects. In many cases, this discovery was completely unexpected. For example, that first source turned out to be a very small star in a binary system with a more normal star. The vast amount of energy needed to produce the X-rays was provided by gravity, which, because of the small star's mass (about equal to the Sun's) and compactness (about 10 km in diameter) would accelerate particles transferred from the normal star to X-ray emitting energies. In 1962, who knew such compact stars (in this case a neutron star) even existed, much less this energy transfer mechanism?

X-ray astronomy grew in importance to the fields of astronomy and astrophysics. The National Academy of Sciences, as part of its "Decadal Survey" released in 1981, recommended as its number one priority for large missions an X-ray observatory along the lines that Giacconi outlined in 1963. This observatory was eventually realized as the Chandra X-Ray Observatory, which launched in 1999.



The Chandra Project is built around a high-resolution X-ray telescope capable of sharply focusing X-rays onto two different X-ray-sensitive cameras. The focusing ability is of the caliber such that one could resolve an X-ray emitting dime at a distance of about 5 kilometers!

The building of this major scientific observatory has many stories.

Learn more about Chandra at www.science.nasa.gov/missions/chandra . Take kids on a "Trip to the Land of the Magic Windows" and see the universe in X-rays and other invisible wavelengths of light at spaceplace.nasa.gov/magic-windows.

Dr. Weisskopf is project scientist for NASA's Chandra X-ray Observatory. This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Upcoming Speakers for 2013

TBA

Sue French – A few of My Favorite Things

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 log, 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.