



# Mid-Hudson Astronomical Association

## July, 2017

Website: [www.midhudsonastro.org](http://www.midhudsonastro.org)

Yahoo Group: MHAstro

**President :** Willie Yee  
**Secretary:** Jim Rockrohr  
**Newsletter Editor:** Rick Versace  
**Publicity:** Paul Chauvet  
**Speakers:** Paul Granich

**Vice President:** Jack Chastain  
**Treasurer:** Karen Tulchinsky  
**Membership Coordinator:** Caryn Sobel  
**Webmaster:** Paul Chauvet  
**Outreach:** (open)  
**College Liaison:** Dr. Amy Forestell

**Board of Directors:** Joe Macagne, Karl Loatman, Steve Carey

### Minutes of the monthly meeting of the Mid Hudson Astronomical Association, June 20, 2017

The meeting was called to order at 7:39 PM by President Willie Yee in the Auditorium of the Coykendall Science Center at SUNY, New Paltz, NY.

The minutes of the last meeting were approved as published in the latest newsletter.

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

**Membership:** Caryn Sobel was not present.

**Treasurer:** Karen Tulchinski was not present. See the latest report as published in the newsletter.

#### **Treasurer's Report for the month of June, 2017**

Date: 16 July, 2017

Bank Balance:	\$2693.26
Outstanding Checks:	\$ 0.00

Outstanding Deposits:           \$ 24.95  
Ending Bank Balance:           \$2743.55  
Checkbook Balance:           \$2743.55  
Balance with Bank: Yes

Ending balance total:           \$2743.55  
Notes: Outstanding deposit is for membership paid via PayPal.  
Respectfully submitted:       Ken Bailey for Karen Tulchinsky  
  Treasurer

**Outreach:**

- **Adriance Library, Poughkeepsie, evening program** – July 1, 8:15, Willie coordinating. >50 people registered, so far!
- **Adriance Library, Poughkeepsie, Solar Viewing** – July 8, 1 PM. Willie coordinating.
- **Olana** – October 21. Willie coordinating.
- **Pine Plains Library** – date TBD. Solar viewing and presentations. Ken Bailey coordinating.
- **Solar Eclipse** – August 21. We have had several requests for programs around the solar eclipse, but no one will be here to lead them. Raj may have a program at SUNY.
- **Sam's Point** – Date TBD
- **Observe the Moon Night at SUNY New Paltz** – October 28, time TBD.
- **Observe the Moon Night** – October 28. Coordinated by Jack and Ken at a private farm. Details TBD.

**Publicity:** Paul Chauvet was not present. Send him info on public events.

**Webmaster:** Paul Chauvet was not present. No issues known.

**Upcoming programs:** The following information was shared:

- July: "Mysteries of Meteorites: Our Keys to the Early Solar System" by Dr. Heather Watson, Assistant Professor of Physics and Astronomy at Union College.

**Old Business:**

- Willie purchased 1000 solar sun glasses with the funds approved at the last meeting. He will schedule a work party to put MHAA stickers on them.
- Exceptional Outreach Award presented to Rick Versace from the International Dark Sky Association for participating in over 6 events last year.

**New Business:**

- (none)

**Observing Reports:**

- **Michael Kudish Preserve, Stamford NY** – May 19-20, Willie, Jack, Rick, Ken, and Paul Granich. Very well received. Included solar viewing in 8" scope. Observing until late at night.

**Visitors/New Members:**

There were about 21 people in attendance at the end of the business meeting.

The meeting was adjourned at about 7:52 PM. The next meeting is on July 18<sup>th</sup>.

The presentation that followed was "Telescopes of the MHAA" by Joe Macagne, Jack Chastain, Willie Yee, and Rick Versace.

Submitted by James Rockrohr, July 15<sup>th</sup>, 2017.



## Twenty Years Ago on Mars...

By Linda Hermans-Killiam

On July 4, 1997, NASA's Mars Pathfinder landed on the surface of Mars. It landed in an ancient flood plain that is now dry and covered with rocks. Pathfinder's mission was to study the Martian climate, atmosphere and geology. At the same time, the mission was also testing lots of new technologies.

For example, the Pathfinder mission tried a brand-new way of landing on Mars. After speeding into the Martian atmosphere, Pathfinder used a parachute to slow down and drift toward the surface of the Red Planet. Before landing, Pathfinder inflated huge airbags around itself. The spacecraft released its parachute and dropped to the ground, bouncing on its airbags about 15 times. After Pathfinder came to a stop, the airbags deflated.

Before Pathfinder, spacecraft had to use lots of fuel to slow down for a safe landing on another planet. Pathfinder's airbags allowed engineers to use and store less fuel for the landing. This made the mission less expensive. After seeing the successful Pathfinder landing, future missions used this airbag technique, too!



The Mars Pathfinder lander took this photo of its small rover, called Sojourner. Here, Sojourner is investigating a rock on Mars. Image credit: NASA/JPL-Caltech

The lander was renamed the Carl Sagan Memorial Station. Carl Sagan was a well-known astronomer and science educator.

Pathfinder had two parts: a lander that stayed in one place, and a wheeled rover that could move around. The Pathfinder lander had special instruments to study Martian weather. These instruments measured air temperature, pressure and winds. The measurements helped us better understand the climate of Mars.

The lander also had a camera for taking images of the Martian landscape. The lander sent back more than 16,000 pictures of Mars. Its last signal was sent to Earth on Sept. 27, 1997. The Pathfinder lander was renamed the Carl Sagan Memorial Station.

Pathfinder also carried the very first rover to Mars. This remotely-controlled rover was about the size of a microwave oven and was called Sojourner. It was named to honor Sojourner Truth, who fought for African-American and women's rights. Two days after Pathfinder landed, Sojourner rolled onto the surface of Mars. Sojourner gathered data on Martian rocks and soil. The rover also carried cameras. In the three months that Sojourner operated on Mars, the rover took more than 550 photos!

Pathfinder helped us learn how to better design missions to Mars. It gave us valuable new information on the Martian climate and surface. Together, these things helped lay the groundwork for future missions to Mars.

Learn more about the Sojourner rover at the NASA Space Place: <https://spaceplace.nasa.gov/mars-sojourner>

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## 2017 Star Party Schedule

| <i>Date</i>    | <i>Time</i> | <i>Sunset</i> | <i>End Civil Twilight</i> | <i>Nearest New Moon</i> |
|----------------|-------------|---------------|---------------------------|-------------------------|
| January 27th   | 7:30PM      | 5:05PM        | 5:35PM                    | January 27th            |
| March 3rd      | 7:30PM      | 5:49PM        | 6:17PM                    | February 26th           |
| March 24th     | 7:30PM      | 7:13PM        | 7:40PM                    | March 27th              |
| April 28th     | 8:00PM      | 7:51PM        | 8:21PM                    | April 26th              |
| May 26th       | 8:30PM      | 8:19PM        | 8:52PM                    | May 25th                |
| June 30th      | 8:30PM      | 8:34PM        | 9:09PM                    | June 23rd               |
| July 28th      | 8:30PM      | 8:18PM        | 8:49PM                    | July 23rd               |
| August 18th    | 8:30PM      | 7:51PM        | 8:20PM                    | August 21st             |
| September 22nd | 7:30PM      | 6:52PM        | 7:20PM                    | September 20th          |
| October 20th   | 7:30PM      | 6:06PM        | 6:35PM                    | October 19th            |
| November 17th  | 7:30PM      | 4:33PM        | 5:04PM                    | November 18th           |
| December 15th  | 7:30PM      | 4:26PM        | 4:48PM                    | December 18th           |

### 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 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.

♦ 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).