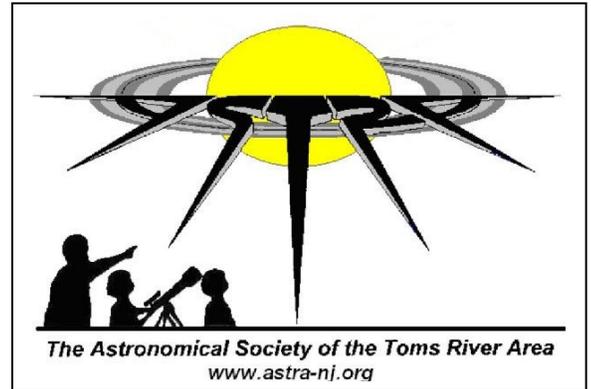


ASTRAL PROJECTIONS

July 2008

www.ASTRA-NJ.org

**** PLEASE NOTE ****



Beginning in March 2008 and until further notice, the monthly ASTRA meetings will be held in the Solar Lounge beginning at 8:00 PM. The Solar Lounge is located in the Ocean County College Center building across from the Planetarium. The relocation of the meeting is due to the impending renovation of the planetarium building to begin in 2008.

With a paid-up family membership for 2008, when you attend a monthly meeting, each family may enter their name into a free random drawing for a door prize to be given away during the meeting.

2008 Meeting Schedule

July 11th - Astrology a Pseudoscience; Presentation by George Hamilton

Sunday August 10th - ASTRA Member Picnic; 3:00 PM; Picnic at the Gamba's House

September 12th - Celestial Navigation: Presentation by Sarah Waters
Start collecting for Observer's Handbook and Observer's Calendar

October 10th - The Glorious Universe: Slide presentation by Rich Mack

November 14th - Subject TBA, by Teresa St. Angelo

December 12th - Election Results, and Awards; Presented by Sarah Waters.
So You Think You're An Astronomer: Presentation by Rich Brady
Dues for 2009; Ro Spedalieri will collect dues for next year's membership.

Our Next Meeting – 8 PM – July 11, 2008

Astrology a Pseudoscience; Speaker George Hamilton a former director of the Franklin Institute. George Hamilton taught Physics and Astronomy for 34 years. Working with a number of Planetariums for 22 years he was also the Vice President of the Franklin Institute Science Museum for 9 years. As a guest of our current member Rich Mackowitz, he will give a presentation on Astrology a Pseudoscience. He has been listed in Who's Who in the World, America and the East. Having been involved in Middle Atlantic Planetarium Society, (MAPS) a few of you may already know him. Due to travel arrangements, he will start his presentation at the beginning of our meeting, 8PM. Please come early so you will not miss anything.

Highlights of the Last Meeting

Contributed by Allen Malsbury

Vice President, Rich Gamba, chaired the June 13th meeting in Sarah's absence. It was a pleasant night for a meeting and all present enjoyed the good weather and company.

Ro Spedaliere informed everyone that the next club's outreach star party would be 8 pm June 21st at Wells Mills Park in Waretown. She also indicated that later in the year, next fall during October, there will be a camp-out Star party at the same location in the Park. Possible dates for the camp-out party are October 4th and/or the 18th.

Ro also mentioned that some of the club star parties, specifically, the ones held at the Light House, will be "private" and not open to all club members as they have been in the past. They will be by invitation only. Ro will be making calls to those members who have helped at the Light House before. Ro also asked that the Night Sky surveys emailed to all club members be completed and returned ASAP. She also requested that those who had not received it by email contact her for their copy..

It was requested that members contribute to the club's newsletter if possible. Randy mentioned that there are guidelines in the back of the newsletter giving instructions on how to format your newsletter submissions. All members are encouraged to support the newsletter. Submissions should be made to Randy at:

Newsletter Editor: J. Randolph Walton (Randy)

Phone # 732-458-3465

(email checked every other week)

Newsletter @ astra-nj.org

walton000 @ yahoo.com

The annual club picnic will be held at Rich & Peggi Gambas' house. (Thank You Rich & Peggi.) The date for the picnic is August 10th at 3pm. Believe it or not the rain date is the day before on Saturday, August 9th. Directions to Rich & Peggi's house in Toms River will be given elsewhere in this newsletter. Hot dogs and hamburgers to be supplied, but all other foods are supplied by those who attend. Coordination of who will bring what will be done at the next meeting. Also, next meeting the amount needed to cover the cost of the picnic will be collected.

Other topics and issues shared during the open discussion included:

- Mars passed through the Bee Hive during the month of May.
- Ro saw several very bright Iridium flares. (Locations and times for these can be found online).
- There is a new class of planets called "Plutoids" which are small planets like Pluto found beyond Neptune.
- During early July there will be several interesting conjunctions.
- The FBI has been looking for someone in Ocean County who has been misusing a laser pointer. They have contacted Gloria several times who assured them that our club uses their pointers responsibly and never point them near any aircraft. (So, everyone, please be sensitive to this ongoing problem in Ocean County.)
- Next year is the International Year of Astronomy.
- The Discovery Channel has started a new series featuring early NASA achievements Sunday nights at 9 pm.
- The College has contracted with the Vendor(s) to begin the renovations of the Planetarium.
- Rich Brady provided Sky & Telescope magazines for those who want them.
- There is a new shopping center planned in Stafford Township that may threaten the dark skies at Coyle. Several members will look into what might be done to encourage the Township and the Developer to install dark sky friendly lighting.

Randy presented a video whose subject was the changing Solar Cycles. This was an informative and thought provoking DVD. Thanks Randy. As usual, the Doctor and his son provided an excellent mini-feast during the break. Thanks Doc and son.

To top off this great meeting, Bob Sal, gave his well researched and surprising unique topic: "Women in Astronomy with a Crater named after them on the Moon". We all learned about these great women and their important contributions to astronomy.

Perseid Picnic and Star Party – Aug. 10, 2008 Sun.

Contributed by Rich Gamba

This year's Perseid Picnic will once again be held at the home of Rich and Peggi Gamba, 1333 Bay Avenue, Toms River. The Picnic will begin at 3:00 pm and last into the evening for viewing of the Perseid meteor shower. Cost to attend is \$8.00 per adult (*children 16 and under are free*). Please make checks out to "Rich Gamba" or bring exact change. We will be providing hot dogs and hamburgers, condiments, chips and pretzels, sodas and water. Please bring a favorite entrée, salad or dessert and whatever beverages you may enjoy.

There is a pool and hot-tub available for the kids to use (*adults are welcome also*) and crabbing at the dock. Please bring your telescope, for either daytime or evening viewing. (*Sunscreen and bug repellent are also a good idea*).

Directions: We are located ½ mile east of Fischer Blvd. on the corner of Bay Avenue and Bermuda Avenue. There is parking on both sides of the house and on Bermuda Avenue. Come around to the back of the house through the wooden gates on either side. If you get lost or need further directions please call 732-506-7700.

Dues are Due for 2008

Your Dues must be paid if you want to come to the ASTRA Picnic.

To renew or join complete a membership form. For a form, see Ro Spedaliere Treasurer@astra-nj.org at a club meeting or get it from our club website. Turn it in at a club meeting or mail to the address listed on the form.

If you are not paid by the March meeting you will be dropped from membership, and you will need to join as a new member.

Star Party Plans

For members who enjoy observing the skies, checkout the following list. ASTRA hosts several *public* and *private* star parties, coordinated by Ro Spedaliere. Many members also attend star parties put on by *other* groups held at other locations.

Coyle Field (*private*) See website Message Board for dates and times;

Maryland road trip - TBA

July 25th - Saint Barnabas Church (*public*)

Bayville, NJ.

August 2nd - Cloverdale (*public*)

Cloverdale County Park, Barnegat, NJ

August 8th - OCC Summer Star Watch (*public*)

Ocean County College, Toms River, NJ

August 23rd - Air Cadets (*private*)

Wall Township, NJ

September 13th – Berkeley Pride Day (*public*)

Veterans Park, Bayville, NJ

October 3rd - OCC NASA's 50th Anniversary (*public*)

Ocean County College, Toms River, NJ

October 4th - Cloverdale Star Party Sleep Over (limit 6 people)

Cloverdale County Park Barnegat, NJ.

October 18th - Wells Mills Star Party Sleep Over(limit 6 people)

Wells Mills County Park Waretown, NJ.

Famous Astronomers IV – Women Astronomers

Information contributed by Bob Salvatore, edited by Randy Walton

Of the 950 named craters on the Moon in my book, about 20 are named after women.

1. Catena Krafft: Has a crater chain 60 km long named after her. No information found on her.

2. Hypatia of Alexandria: Regarded as the first woman astronomer, There are two features named for Hypatia, an irregular crater and a system of rilles. The crater is medium sized, measuring 41 km x 28 km. Rimae Hypatia is located north of the crater, and is 180 km long.

3. Caroline Herschel: August 1, 1786, Caroline became the first woman to discover a comet. She discovered 8 comets all together. Her crater is 13.4 km

The Henry Draper Catalogue project, was to catalog all the stars in the entire 1880s sky that could be photographed, and classify their spectra. Edward Pickering hired about 40 women to begin the painstaking task of cataloging.

4. Antonia Caetana de Paiva Pereira Maury was responsible for cataloging and computing stellar spectra for stars in the northern hemisphere, for the Henry Draper Catalogue. She rearranged Willamina Flemming's scheme to reflect the temperatures of stars and added a "dimension" to describe the spectral lines. Her work on spectroscopic binaries led her to co-discover the first example, Mizar in Ursa Major. Crater 17.6 km.

5. Annie Jump Cannon's duties included cataloging variable stars and classifying the spectra of stars in the southern hemisphere for the Henry Draper Catalogue. Cannon refined the cataloging schemes of Fleming and Maury, reduced to seven and arranged by temperature giving us OBAFGKM. Her category scheme was officially adopted as the standard in 1910 by the International Astronomical Union. Today, with minor changes, Cannon's system is known as the Harvard Spectral Classification. Flooded Crater with lighted floor 57 km.

6. Henrietta Swan Leavitt. Leavitt devised a system, using the photographic magnitudes of a group of stars near the north celestial pole to act as standards of reference for the brightness other stars. By studying Cepheid variables in the Small Magellanic Cloud, Leavitt determined the absolute magnitudes of stars. This led to the period-luminosity relationship of these variables, which led to the ability to determine distances of stars from *one hundred* lightyears to *ten million* lightyears. She discovered over 1,200 variable stars. Crater 66 km.

7. Willamina Paton Stevens Fleming discovered 59 gaseous nebulae, over 310 variable stars, and 10 novae. In 1888, Mrs. Fleming discovered the Horsehead nebula. Nothing on the Moon

8. Agnes Mary Clerke was a writer in the field of astronomy. She achieved a world-wide reputation in 1885, on the appearance of her exhaustive treatise, *A Popular History of Astronomy during the Nineteenth Century*. Clerke worked on collating, interpreting and summarising the results of astronomical research. Crater 7km.

9. Mary Adela Blagg worked on the problem of developing uniform lunar nomenclature. She was appointed by the International Association of Academies to build a list of all of the lunar features. After the publication of several research papers for the Royal Astronomical Society, she was elected as a fellow, the first woman to be allowed entry. She joined the Lunar Commission of the International Astronomical Union and continuing her work together with Karl Müller, produced a two volume set that became the standard reference. Crater 5.4 km.

10. Louise Freeland Jenkins was noted for her research into the trigonometric parallax of nearby stars. She also studied variable stars. Crater 38 km.

11. Nicole-Reine Étable de la Brière Lepaute In 1762 Lepaute calculated the exact time of a coming solar eclipse in 1764. and gave a map of the eclipse's extent in 15-minute intervals across Europe. She worked with Alexis Clairault and Jérôme Lalande in the calculation of the attraction of Jupiter and Saturn on Halley's Comet. Nichole also created a group of catalogs of the stars which were essential for the future of Astronomy. The asteroid 7720 Lepaute is named in her honor. Crater 16 km.

12. Maria Sklodowska, aka Marie (Madam) Curie Discoverer of radium and polonium. First woman to teach at the Sorbonne. She was awarded a Nobel in 1911 for her work on radium and its compounds. The element curium, discovered in 1944, is named after the Curie family. Crater 130 km.

13. Mary Somerville published in 1848, *Physical Geography*, the first geography text to be written in English. Somerville's last work of note was the two-volumes *On Molecular and Microscopic Science*, published in 1869. Crater 15 km.

14. Anne Sheepshanks contributed a legacy to the observatory at Cambridge. This fund was used to purchase a modern photographic telescope, which was named in her honor and used in the Henry Draper Catalogue project. Crater 25 km.

15. Caroline Shoemaker has discovered 32 comets, In 1993, Her most significant discovery (with husband, Eugene, and David Levy) was of the Comet Shoemaker-Levy 9, which collided with Jupiter in 1994. Dr. Caroline Shoemaker is responsible for discovering more than 300 asteroids.

Save the Planetarium Fund, Inc.

www.SavethePlanetarium.org

A non-profit charity has been established to help save the Novins Planetarium at Ocean County College. The only planetarium that was open to the public in central New Jersey. This is your chance to pitch in.

While we have been successful in getting the planetarium to be reopened, funding is still needed to assist with the renovation. Please continue to spread the word about the Novins Planetarium and help us to close the gap in the renovation costs. There is still money available in our Matching Gift Program. So make your donation go further by donating to the Save the Planetarium Fund Matching Gift Program.

2008 July Celestial Events:

Supplied by J. Randolph Walton (Randy)

Day	Date	Time (EDT)	Event
Wed	2	20:38	Moon Set
		22:19	New Moon
Sat	5	04:15	Mercury Rises
		05:37	Sunrise
		20:32	Sunset
		20:35	Jupiter Rises
		21:03	Venus Sets
		22:34	Moon Set
		23:05	Mars Sets
		23:15	Saturn Sets
Thu	10	00:07	Moon Set
		00:35	First Quarter Moon
		02:00	Saturn 0.7 deg. N of Mars
Sat	12	04:20	Mercury Rises
		05:35	Jupiter Sets
		05:42	Sunrise
		16:04	Moon Rise
		20:29	Sunset
		21:05	Venus Sets
		22:44	Mars Sets
		22:46	Saturn Sets
Fri	18	03:59	Full Moon
		05:49	Moon Set
Sat	19	04:45	Mercury Rises
		05:00	Jupiter Sets
		05:47	Sunrise
		20:25	Sunset
		21:06	Venus Sets
		21:22	Moon Rise
		22:20	Saturn Sets
		22:30	Mars Sets
Fri	25	13:38	Moon Set
		14:42	Last Quarter Moon
Sat	26	04:30	Jupiter Sets
		05:30	Mercury Rises
		05:53	Sunrise
		14:53	Moon Set
		20:19	Sunset
		21:04	Venus Sets
		21:55	Saturn Sets
		22:12	Mars Sets
Mon	28	16:00	S. delta-Aquarid meteors (ZHR=20)

2008 Aug. Celestial Events:

Supplied by J. Randolph Walton (Randy)

Day	Date	Time (EDT)	Event
Fri	1		Total Solar Eclipse, not visible in US
		06:02	Moon Rise
		06:12	New Moon
Sat	2	04:00	Jupiter Sets
		06:00	Sunrise
		20:12	Sunset
		20:33	Mercury Sets
		20:59	Moon Set
		21:00	Venus Sets
		21:30	Saturn Sets
		21:55	Mars Sets
Fri	8	16:20	First Quarter Moon
		23:29	Moon Set
Sat	9	03:30	Jupiter Sets
		06:06	Sunrise
		14:54	Moon Rise
		20:04	Sunset
		20:40	Mercury Sets
		20:55	Venus Sets
		21:05	Saturn Sets
		21:35	Mars Sets
Tue	12	07:00	Perseid meteors peak (ZHR=90)
Sat	16	03:00	Jupiter Sets
		17:16	Full Moon
			Partial Lunar Eclipse, not visible in US
		19:51	Moon Rise
		19:55	Sunset
		20:35	Saturn Sets
		20:40	Mercury Sets
		20:46	Venus Sets
		21:20	Mars Sets
Sat	23	02:30	Jupiter Sets
		19:45	Sunset
		19:49	Last Quarter Moon
		20:15	Saturn Sets
		20:35	Mercury Sets
		20:40	Venus Sets
		21:02	Mars Sets
		23:15	Moon Rise
Sat	30	02:00	Jupiter Sets
		15:58	New Moon
		19:24	Moon Set
		19:34	Sunset
		19:50	Saturn Sets
		20:25	Mercury Sets
		20:31	Venus Sets
		20:45	Mars Sets

Astronomical League

www.AstroLeague.org

As an ASTRA member you have a membership in the Astronomical League, which gets you the Reflector magazine, discounts on books, and Observing Awards. If you are not getting your Reflector magazine or want to apply for an Observing Award contact the club **ALCOR**: Ro Spedalieri.

Items for Sale

ASTRA-WEAR: For Embroidered and/or Printed items with the ASTRA Logo

You can see some samples at ASTRA meetings and ordering information for all items on our website, <http://www.astra-nj.org/ASTRA-WEAR.pdf>.

Stellarvue 4" f/6.9 Achromatic Refractor Optical Tube Assembly, Model # 102D. Focal length 704mm. The objective is partially attenuated, meaning visible color is very minimal. I've seen traces of color only on the Moon and brightest planets and stars. Contrast is unusually high. Includes a nesting dew cap and a fully rotating JMI Crayford 2" type tailpiece. Also with a 1¼" adaptor, Stellarvue tube rings, and a soft padded Stellarvue carry case. Combined original cost over \$1075. ~~Sell for \$850~~, Now reduced to \$550.

Contact: *Phil Zollner* at 732-905-0889 or pazap@juno.com

Latest Items; see the club website.

Astronomic Group Purchase, Items for Sale, or Help Wanted Advertisements: If you want to handle a Group Purchase, have Sale items, or need Help contact the President President@astra-nj.org to announce it at a meeting and send the advertisement to the newsletter (See *Newsletter* below).

Education Article: If you have written a general interest astronomy article, please submit it to the newsletter (See *Newsletter* below). Try to keep it less than one page or it may need to be split over several months. It would be helpful if it were sent as an MS Word document attachment to an e-mail.

Newsletter: E-mail material to Newsletter@astra-nj.org or mail to: Novins Planetarium, ASTRA Newsletter, Ocean County College, P.O. Box 2001, Toms River, NJ 08754-2001. If you do send something please call Randy Walton, phone 732-458-3465 as I may only check for e-mail at my local library weekly or the Planetarium only on the night of an ASTRA meeting. ***Deadline:*** Material for *ASTRAL PROJECTIONS* must be received 21 days before the next meeting.

Astronomy Courses: Planetarium staff offers a number of mini-courses on astronomy. Call the OCC Department of Continuing and Professional Education, 732/255-0404, for information or to register.

Planetarium office: 732/255-0343 weekdays 9 AM - 4 PM. ***Hot line:*** 732/255-0342. Select 6 for ASTRA. Visit the Planetarium web page at <http://ocean.edu/planet.htm> or visit our web page at <http://astra-nj.org>

Executive Board: **President** - Sarah Waters, President@astra-nj.org; **Vice President-Secretary** - Rich Gamba, VP@astra-nj.org; **Treasurer** - Ro Spedalieri, Treasurer@astra-nj.org; **Newsletter Editor** - Randy Walton, phone 732-458-3465, Newsletter@astra-nj.org, checked weekly; **Webmaster** - John Endreson, Webmaster@astra-nj.org.