

ASTRAL PROJECTIONS

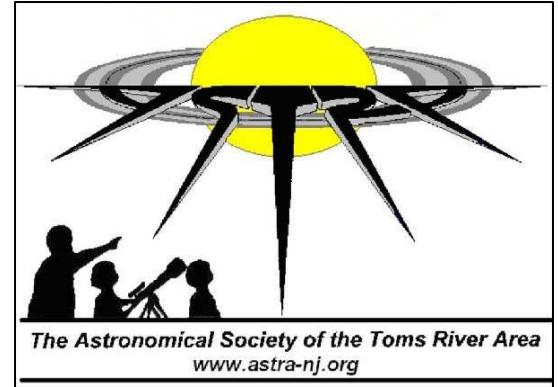
Special Edition

Aug 2009

www.ASTRA-NJ.org

**** PLEASE NOTE ****

There is no meeting for the month of August. The next meeting will be on Sep 11 in Building 13 at 7:00 PM.



Special Event: The **ASTRA Picnic** will be held on the **16th of Aug** at the Gamba's house. The cost will be \$8.00 per adult; kids 16 and under are free. Start time will be 3:00 pm. The Gamba's will be supplying the basics (hot dogs, hamburgers, chips, soda, etc.) People can bring their favorite dish and drink. Just call (732-270-1660) or email (rich@estitches.com or Peggi@estitches.com) the Gamba's with what dish you are bringing so there isn't too much duplication. Time is short, so please get your money into the Gamba's quickly.

Franklin Institute: No real consensus was reached on when everyone would be going to the Franklin Institute in Philadelphia to see the Galileo exhibit. Sarah (and family) will be going on Aug 15. Ro, Bob, John E., Don, and Geoff have indicated that they are interested in going; no date was set for them. John and Bob have indicated they would take their vans. Contact John or Bob to find out when they are going and if there is room in their van. Phil was interested in going sometime in August after his return from the eclipse trip. Gloria had offered to set up something special at the Institute, but that would have to be on a weekday. There are too many loose ends!

With a paid-up family membership for 2009, 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.

Our Next Meeting – Friday – 7 PM – Sep 11, 2009

Guest Speaker – Astronaut: Astronaut Robert Cenker will recount the Space Shuttle Columbia STS 61-C mission. Meeting will be in the Technology Building (#13).

2009 Meeting Schedule

See www.ASTRA-NJ.org for latest update
(All meetings start at 7:00 PM unless otherwise noted)

August – No Meeting (Picnic Date Aug 15 – hosted by Peggi and Rich Gamba)

September 11th – Space Shuttle Columbia STS 61-C mission Guest Speaker Astronaut Robert Cenker

October 9th – **Mirror Grinding** presented by Gene Russo

November 13th – **Star Party Roundup**

December 11th – **Annual Awards Meeting and Presentation by Phil Zollner on the Eclipse**

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 Spedalieri.

July 31st: The Lighthouse Center, ASTRA members only.

August 1st: OCC Summer star watch, open to the public.

August 14th: The Lighthouse Center, ASTRA members only.

August 21st: Jake's Branch Park Beachwood, open to the public.

August 28th: The Lighthouse Center, ASTRA members only.

August 29th: Air Cadets, TBD.

September 12th: Berkeley Pride Day, open to the public.

See the [ASTRA website](#) for the latest times, dates, and directions.

Highlights of the Last Meeting

July 10, 2009

Discussions:

The club picnic will be hosted by Peggi and Rich Gamba. The Picnic will be held on the 16th of Aug at 3:00 PM. The cost will be \$8.00 per adult; kids 16 and under are free. [See Special Event above for the details – time is short, act quickly]

Some time was taken to move outside to view the International Space Station as it moved across the sky.

Famous Astronomers of the 17th Century:

Rich Brady discussed 5 famous astronomers centered on a 100 year period from the mid 16th century to the mid 17th century. This period is considered the time of the birth of modern astronomy. The efforts during this period were concerned with the model of the universe. The accepted model (an Earth centered universe) up to that time was developed by Claudius Ptolemy who refined the model originally created by Aristotle. Nicholas Copernicus developed a Sun centered model of the universe early in the 16th century. Tycho Brahe developed an Earth centered model around the end of the 16th century that was a composite of the two other models. Tycho was best known for his very accurate measurements of the position of the planets and stars using the Quadrant. The efforts to determine which of these was the correct model was discussed. Much evidence was discovered by Galileo who first used the telescope to systematically explore the heavens. Kepler took the data collected by Tycho and developed the three laws of planetary motion which supported the Copernican system and also improved upon it. It wasn't until Isaac Newton developed his three laws of motion and the Universal Law of Gravity that the motions of the planets were explained. It wasn't until the 19th century until it was finally proven that the Earth revolves around the Sun and that the Earth rotates on its axis.

2009 Aug. Celestial Events: supplied by J. Randolph Walton (Randy)

Day	Date	Time (EDT)	Event
Sat	1	01:43	Mars Rises
		02:57	Venus Rises
		17:33	Moon Rise
		20:13	Sunset
		20:50	Jupiter Rises
		21:10	Mercury Sets
		22:05	Saturn Sets
Wed	5	19:58	Moon Rise
		20:39	Penumbral Lunar Eclipse, not noticeable
		20:55	Full Moon
Fri	7	01:10	Io casts shadow on Europa
		01:30	Io occults Europa
Sat	8	01:37	Mars Rises
		03:05	Venus Rises
		20:05	Sunset
		20:20	Jupiter Rises
		21:06	Mercury Sets
		21:08	Moon Rise
		21:40	Saturn Sets
Wed	12	14:00	Perseid meteors (ZHR=90),
Thu	13	13:59	Moon Set
		14:55	Last Quarter Moon
Fri	14	03:48	Io casts shadow on & occults Europa
Sat	15	01:27	Mars Rises
		03:15	Venus Rises
		16:15	Moon Set
		19:56	Sunset
		19:56	Jupiter Rises
		20:55	Mercury Sets
		21:10	Saturn Sets
Wed	19	02:00	Ganymede eclipses Europa
Thu	20	06:02	New Moon
		06:28	Moon Rise
Sat	22	01:20	Mars Rises
		03:27	Venus Rises
		05:35	Jupiter Sets
		19:46	Sunset
		20:40	Mercury Sets
		20:44	Moon Set
		20:45	Saturn Sets
		23:15	Io casts shadow on Ganymede
Wed	26	22:42	Double shadow transit on Jupiter
Thu	27	07:42	First Quarter Moon
		14:33	Moon Rise
Sat	22	01:10	Mars Rises
		03:40	Venus Rises
		05:05	Jupiter Sets
		16:16	Moon Rise
		19:36	Sunset
		20:20	Mercury Sets
		20:20	Saturn 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.

OPT Reward Club

ASTRA members should start receiving their OPT Rewards Club membership cards in the mail. You don't have to do anything just use your Rewards number when you purchase your astronomy equipment from Oceanside Photo & Telescope "OPT" and receive exclusive discounts.

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>.

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).

Newsletter: E-mail material to Newsletter@astra-nj.org

Executive Board: **President** – Rich Brady, President@astra-nj.org; **Vice President-Secretary** – Ed Mullen, VP@astra-nj.org; **Treasurer** - Ro Spedaliere, Treasurer@astra-nj.org; **Newsletter Editor** – Allen Malsbury, Newsletter@astra-nj.org; **Webmaster** - John Endreson, Webmaster@astra-nj.org.
