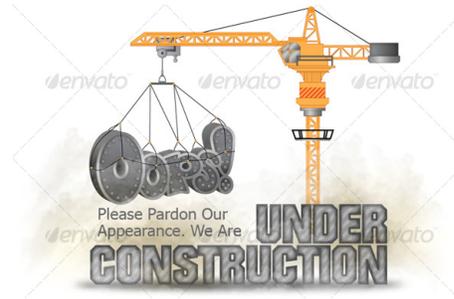




ASEM NEWSLETTER DECEMBER 2011



We'll be right back after this important message from our Executive Director, Stacy Thater:



I would like to take this opportunity to introduce myself to those of you who haven't met me yet. My name is Stacey Thater and I was an original Board member for the Alliance for Astronomy and past President of the Board. I currently teach at St. Charles Community College and do research in variable stars. I have a wife, Tara, and two young children Maggie and Marvin. I enjoy astronomy (naturally), and also volunteer for the Girl Scouts on an Outdoor Adventure Course.

I am honored to be serving as the ED for the Alliance and plan to serve as long as the Board will have me. I have spoken with many of you already and look forward to meeting more of you as time goes on. I have already had discussions about the future of ASEM and the AfA and will be looking forward to establishing a more formal arrangement for the volunteer positions that currently exist and for future positions. I met with a few of the members and came up with a list of new and current positions that we would like to formalize as soon as I get appropriate job descriptions written.

This organization is nothing without the contributions of its members and I deeply appreciate all that you do for us. Please drop me a line if you are interested in serving in any capacity for the AfA. I am open to any ideas that will help make ASEM a stronger organization.

For now I will be handling all membership duties, so please send all membership information to:

Alliance for Astronomy (ASEM)
PO Box 141
New Melle MO 63365

I hope to see you at a future ASEM event.

Stacey Thater

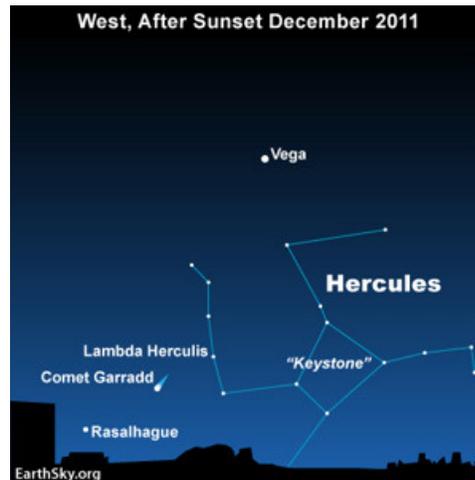
stthater@stchas.edu

REGULAR CONTRIBUTORS OR USUAL SUSPECTS – YOU DECIDE

JIM TWELLMAN

We have at least 3 Outreach logs turned in awaiting recognition. I do not anticipate hearing back on them until early January.

I'd personally like folks to take advantage of dark skies (like Danville) and to encourage those who haven't yet seen comet Garradd to give it a look. I saw a nice faint tail at Danville on Thanksgiving evening. I think this comet hits perihelion on Dec 23rd, so the tail is not yet at its' best. It will be observable until March, but I think the tail will be best in late December and perhaps mid-to-late January. Of course, that being when it is closest to the sun, it will be harder to observe.



See <http://earthsky.org/astronomy-essentials/how-to-find-comet-garradd-in-autumn-2011-and-winter-2012> For more.

If I was to encourage any particular Astroleague club at this meeting, it would be the comet club, strictly because this is a comet "with tail" that is observable with bins from a dark sky site. Also, of course, because comets are just plain COOL.

(Note from the editor: Jim was awarded the Comet club award several years ago so he can provide expert advice regarding the club, the comets and observing them)

MARV STEWART

The late Carl Sagan once said of Kepler that, " he was the first astrophysicist and the last scientific astrologer." His work with planets is something I have never gotten tired of reading. Kepler was deeply religious and tried to make his scientific work pure truth, even if it conflicted with the belief of the church, his findings were factual and true.

Being part astrologer, Saturn and Jupiter attracted his attention. Jupiter takes 12 years to orbit the Sun, (actually 11.9). Saturn takes 30 years (really 29.5) to do the same. Jupiter spends about a year in each member of the Zodiac, Saturn needs about 30 months to do the same. Every 20 years these two giants meet, (would you believe 19.85?) . Each conjunction occurs approximately 117 degrees apart. Thus, Jupiter and Saturn every 60 years always meet in the same sign of the Zodiac. If you multiply 117 X 3 the answer is 351 degrees, with 9 remaining to complete a circle, or 360 degrees. Those 9 degrees slowly pushes the meeting point eastward through the constellations

that make up the Zodiac, until after 40 years of what Kepler called Trignons, Jupiter and Saturn have gone full circle.

As Kepler began to work these conjunctions backwards, he was startled to find that in 7 BC both Jupiter and Saturn had conjoined not once, which was common, but three times. The first on May 29, 7 BC, when they were about two full Moon's width apart. The second time on Sept. 29th. Again they moved apart, but on Dec. 6th they moved back together for the third and final time. This triple conjunction happens every 973 years. The first was the same thing that happens every 20 years when Jupiter catches up with Saturn. The second conjunction was caused by the Earth's movement in its orbit, causing an apparent reversing motion. Since that reversing motion is only temporary on the third conjunction once again Jupiter appeared to overtake Saturn.

Was this the heavenly sign that had convinced the Magi to go to Bethlehem? They probably would have known that the 20 year conjunction was going to occur by looking at their records. But the second and third conjunction they could not have predicted. To do that they would have had to know the Sun was in the middle of the Solar System, not the Earth, and also know a lot about the orbits of planets which they didn't, and since triple conjunctions only occur every 973 years they had no knowledge of it.

There are those who insist that the sign was a special star, but there are no records of any special star recorded by any of the other peoples of the region to verify that. But there is a lot of evidence that astrology was firmly rooted in all cultures of that time. The next triple conjunction will occur in 2230 AD.

AMY WHITE

I have volunteered to be the Beginners meeting coordinator. I want to help people have fun with astronomy. Sometimes my job will be matchmaker. We have a lot of talent in ASEM and in the St. Louis region, and I want to make sure that people with similar interests are talking to each other.

Let me personally thank Tom Richards for all his hard work with the Beginners pages on the ASEM website. He lists many excellent resources. Please take some time to explore them.

Beginners meetings will be held at the Weldon Spring Interpretive Center on Thursdays starting at 7pm. A number of ASEM people responded to me about what they wanted in Beginners meetings. Based on what they wrote, the format will be mostly question and answer with topic discussion when there is a need. Everybody, member or not, is welcome. Experienced observers are encouraged to attend to share their knowledge. Whenever I go to Broemmelsiek Park or to an ASEM meeting, I always learn something new. What kinds of cookies do you like? Hope to see you on January 5th.

Think twice about printing: save a tree when you can.=

CALENDARS

CLUB

Monthly Beginner Meeting:

Will meet at the regular time and place for December. January on the other hand, brings an exciting change:

As noted above, starting in January the monthly Beginner Meeting will move to the first Thursday of the month. It will still meet at the Weldon Spring Center at 7:00 p.m. Amy White will lead the meetings starting January 5th.

SIG news (Special Interest Groups). All SIG meetings take place at the Weldon Springs Nuclear containment site at the specified times (Don't worry, you won't be irradiated any more than usual ;)

DigitalSIG - December 20th at 7:00 p.m

Topic: Connecting Your Telescope to a Computer with ASCOM. ASCOM is a set of free vendor-independent standards for drivers that provide plug-and-play control of astronomical instruments and related devices.

Hands-On Computer Related Imaging:

Plans are underway to have a daylong workshop on Saturday January 28th. Bring your laptop and work on improving your digital imaging skill. Sessions ideas include:

- Photoshop post-processing
- Stacking with DeepSkyStacker
- Imaging with MaximDL
- Imaging with CCDStack
- Imaging with Nebulosity

Watch the DigitalSIG and StLouis Astronomy Yahoo lists for more information.

DIY-ATM-SIG will not meet this month due to Christmas/New Year

Next meeting: Wednesday January 25th at 7:00 p.m.

Observers SIG

There has been some interest in forming an observer's Special interest group. This group would be oriented around observing with a social aspect. This is still in the development stage so talk with Steve Boerner at this Saturdays ASEM general meeting or contact him at steve.boerner@asemonline.org for more information.

OUTREACH (VIA JIM TWELLMAN)

Looking at the ASEM calendar and the STLAstronomy calendar, I see no upcoming "road-trip'" outreach events from now thru January. We of course will have FNOH's [Friday night open houses - ed], weather-permitting.

ASTRONOMICAL (VIA MARV STEWART)

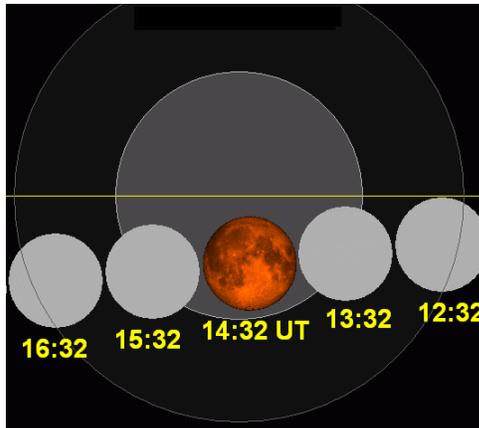
December

- 2 First quarter Moon.
- 6 Jupiter near crescent Moon.
- 10 Full Moon. (See below for eclipse)
- 13-14 Geminid meteor shower, Not great because of nearly full Moon.
- 14-28 Mercury at its highest in southeastern sky at dawn.
- 17 Last Quarter Moon.
- 21-22 Longest night of the year. (Ed: Why is this date so special?)
- 23 Crescent Moon close to Mercury in early morning sky.
- 24 New Moon.
- 26 Bright Venus and the Moon in evening sky.

This Saturday morning, December 10th, a lunar Eclipse occurs in the wee hours. Even though it isn't favorable for these parts, if you're up early, take a look, you'll catch the start. Unfortunately totality occurs over the Pacific so if you want a terrific view, head down under to Australia.

One of many websites with specific information on this eclipse:

http://en.wikipedia.org/wiki/December_2011_lunar_eclipse



Particulars:

- 05:33 Enter Penumbra, Alt=16°
- 06:06 Penumbra First Visible, Alt=10°
- 06:45 First Contact, Alt=3°
- 07:07 Sunrise

ORGANIZATION NOTES

Next month we will be publishing more information regarding the committees, their responsibilities and their members. For now, use the contacts below for communications. This is a work in progress and we have VERY LARGE shoes to fill.

Steve Boerner has setup email addresses for the following committees. Comments, questions, suggestions and money (just kidding) may be sent to the following addresses:

programs@asemonline.org

Use this address to communicate with the program committee. If you have something to present at a meeting or wish to contribute and let someone else perform, send it here. Questions and/or suggestions about programming etc. Remember, they are here to help you. This is a user friendly society and we like to see members get up and share.

equipment@asemonline.org

This address is used to find out about ASEM loaner equipment. If you find something amiss at BPark by all means report it here. If you are curious about borrowing an item, put in a request via this address.

hospitality@asemonline.org

Got a main dish you'd like to bring to the potluck? We sure could use it AND you will be reimbursed for your expenses.

newsletter@asemonline.org

Primary contact for the newsletter. Got an article or notice you'd like to see published? Send it here and be famous!

Outreach@asemonline.org

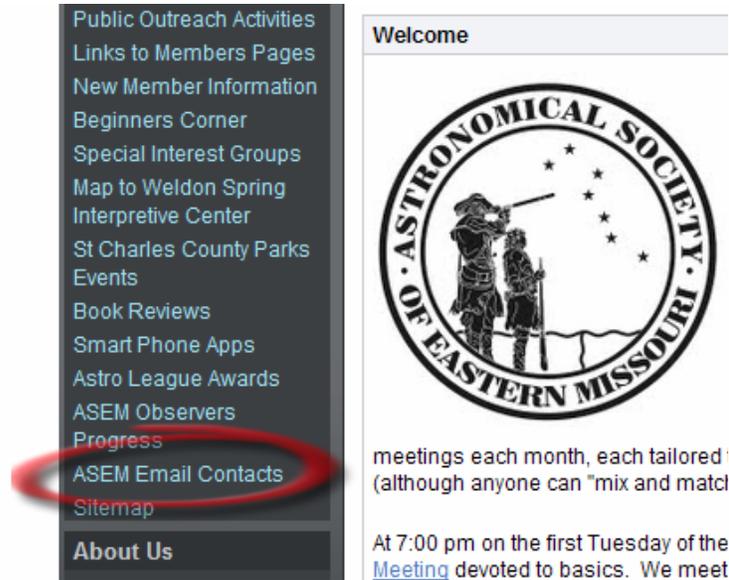
Special requests for groups at Broemmelsiek Park including:

- notice of large party (more than groups of twenty)
- request for specific requirements needed (school assignment, merit badge requirements, etc.)
- Requests for Star Party / Telescope event at another location

steve.boerner@asemonline.org

Web page and all other communications not covered above

These addresses can also be found at the ASEM website. In fact, check there for updates (I did and found two new ones while proofing this entry – our webmaster is a productive fellow ;)



Public Outreach Activities
Links to Members Pages
New Member Information
Beginners Corner
Special Interest Groups
Map to Weldon Spring Interpretive Center
St Charles County Parks Events
Book Reviews
Smart Phone Apps
Astro League Awards
ASEM Observers
Progress
ASEM Email Contacts
Sitemap
About Us

Welcome



meetings each month, each tailored!
(although anyone can "mix and match")

At 7:00 pm on the first Tuesday of the
[Meeting](#) devoted to basics. We meet

MEMBER NOTES

GROUP NEWS & ENTERTAINMENT

As always, late breaking news and member adventures (or shenanigans as the case may be) can usually be found at STLAstronomy in yahoo groups. If you aren't a member, you should join. Go to

<http://tech.groups.yahoo.com/group/STLAstronomy/>

And click "Join"

MEMBERSHIP

As always, membership dues and inquiries can be sent here:

Alliance for Astronomy (ASEM)
PO Box 141
New Melle MO 63365

GENERAL MEETING NOTES

- Liz Biddick will be bringing the main dish. Ham is on!
- Along with the usual entertainment values, we'll be talking a bit about receiving approval from the St. Charles City-County library district to perform "Sidewalk Astronomy" at the various library branches. There are a few catches and we'll discuss them before sallying forth.
- Stacy will present the main program. He'll cover the Mars Science Laboratory (successfully launched last weekend and due for landing on Mars next summer).
- Publications are IN! RASC handbooks are \$20 and the Ottewell calendars are \$23. Bring cash or check made payable to St Louis Astronomical Society (don't ask). We know who you are!

Think Clear dark skies