



ASEM NEWSLETTER APRIL 2012



March 29th 2012 Lunar X Image
courtesy ASEM member Grant
Martin¹

Volunteers needed to help with Spring Cleaning at Broemmelsiek Park



As mentioned last month, it's that time of the year: Spring cleaning at home and at the park! Chuck Simms, the ASEM equipment manager, is organizing an equipment cleanup and maintenance session for Saturday April 14th and the following Saturday, the 21st. We need a few volunteers to help with keeping Broemmelsiek Park the preeminent astronomy park in the country. Yes, that's right, ***in the country***. No other park system that we can find has an area open to the public that is specifically dedicated solely for astronomical observing – and we have equipment installed!

Please drop a note to equipment@asemonline.org if you can assist in any way. Chuck will put out an email listing the various tasks that need to be completed and you can let him know what you can do.

Your help will be greatly appreciated by the organizers, membership, parks department and especially the public.

Also note that the internet will be down April 1st for spring cleaning.

¹ We'd like to showcase your best work, submit your astrophoto to newsletter@asemonline.org



Observing SIG by Steve Boerner

I'd like to take this opportunity to invite you to attend ASEM's newest Special Interest Group (SIG). The idea behind the new SIG came about after a public viewing at Broemmelsiek one night last fall.

Generally, observing is pretty much a solitary effort. You and your scope are on one pad, slightly more than muttering distance away from the next. Unless others walk by stretching their legs, you observe by yourself.

That night at Broemmelsiek was different. Six people were sitting around the picnic table with binoculars and observing as a group. One person would mention an object and everybody would follow the directions to find it. We were actually talking about observing and learning at the same time. It was a fun evening and it got us thinking that we all need some of that kind of observing, especially beginners. I mentioned my thoughts to some of the people who'd been around the table and they all felt that starting the new Special Interest Group, the Observing SIG, would be a good idea.

I've always been a person that needs a bit of structure when I do things. If I'm going out to Broemmelsiek to observe, I generally make a list of what I want to see and accomplish. Jim Twellman frequently mentions Astronomical League Observing Clubs and they are great vehicles for structure.

Amy White is now leading the beginners' meetings and we are starting to attract wives that are interested in learning about the sky. After prowling around for quite a while, I finally read about the Astro League's Universe Sampler Club. It seems to fit the bill of a beginning introduction to observing quite well.



The only problem with the Universe Sampler is that the observing lists are not published online. You have to buy the booklet from the Astro League. I did and typed up a summary of the lists. You can find the list at:

<http://www.asemonline.org/members-pages/steve-boerner-s-page/universe-sampler>

I will bring my booklet to our general meetings if you'd like to see it.

By completing the list, you'll see solar system objects like the sun, moon, planets, comets, and meteors. You'll learn the names and locations of fifteen of the brightest stars and their constellations. You will learn to estimate angular distances, azimuth and altitude, and hopefully see variable stars dimming and brightening. There are about twenty deep sky objects that can be seen throughout the year with telescope, binoculars, or naked eye. Since it is an Astronomical League Club, you will need to document your observations, but that is a learning experience too.

One of the reasons the Observing SIG hasn't met yet deals with the weather. I thought it would be best to wait until spring thaw. It is time to get moving. A number of people have suggested that the Observing SIG meet at Broemmelsiek Park following both general and beginner meetings. The meetings will last 45 minutes or so, assuming clear weather. Don't worry about making a special trip if you don't plan on making the early meeting; there will be plenty of sharing and overlap. While at Broemmelsiek we'd slowly work through the lessons in the booklet and requirements for the Universe Sampler Club, but we could easily branch out and do anything the attendees wanted. If you have binoculars, bring them along since the Universe Sampler includes everything from naked eye to telescope. If you are interested in attending any of the Observing SIG meetings, pack some warm layers just in case, and we'll see you there.

March DIY SIG Meeting

Submitted by Tom Richards (SIG coordinator)

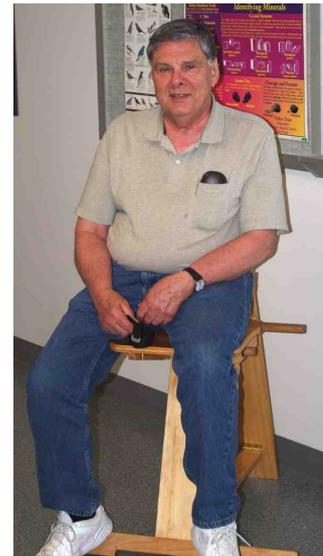
More interesting home-builts scope and gear and craftsmanship have been shown at the past two DIY-ATM meeting by many members, in the February and March meetings. The highlights have been:

Steve Boerner has continued on his Berry Mount design and it is now to the point where it could be used to re-mount department refractor telescopes, an idea that the club could use for a public workshop, if interest was found to support it. Steve has also shown his home-built "downward looking" binocular mount, that uses a "first surface" mirror (pretty handy for observing those over-the-head objects with binoculars), and a home-built inexpensive solar-filter cap for his camera lens that will be very handy for this years' upcoming solar events.



Carl Turek (Left) has displayed his wood crafted "cats perch" chair (that is his version of a design he found off Stellafane), a home-built back-lit wood chart box, that used an array of LEDs behind a red piece of acrylic that provided sufficient back lighting to a 8 1/2 x 11 paper copy of a star chart, and cost saving ideas: eyepieces from Paul Rini; and using computer chassis knurled knobs as replacement collimation screws for SCTs.

Marv Stewart(Right) has shown his version of a "cats perch" chair and an Az-Setting Ring modification to his 8 inch Meade LightBridge, that was made after seeing Carl Turek's designs in a previous meetings (yes, we do inspire each other here). Beautiful work by both, by the way.



Eddie Agha (Left) has showed off a simple solar finder: mounting a short rod to a flat base plate that could be mounted to a scope or camera base, and offering a safe way to follow the sun by following the rod's shadow. This will be another great aid during the upcoming 2012 solar events.



When it comes to "lighting up our world", Carl Turek (Right) and Grant Martin have shown a number of ideas. Carl made a backlit chart box that evenly illuminates reduced copies of his Uranometria charts and Grant uses inexpensive red LED strips from Autozone to illuminate an eyepiece box and a chart table.



At the February meeting, Gary Liming (Right) presented his solar system "Orrery", which is a beautiful piece of wood craftsmanship that you want to put in your living room, and a great explanation and a slide show as to his version of design, as well as fabrication and assembly details, to such an historic mechanism. You have to see this in person. In addition, he presented the fabrication and inner workings of his home-built CNC machine, which has been a key component to his wood, and metal, craftsmanship, as well as other home-built tools that he has used with great success. Wow, says it all here. [ed note: Gary will be the featured speaker at the May general meeting. He will talk about and display this amazing device.]



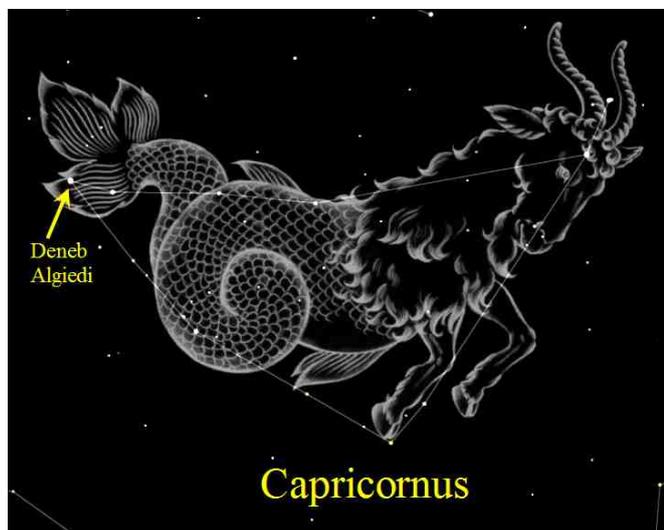
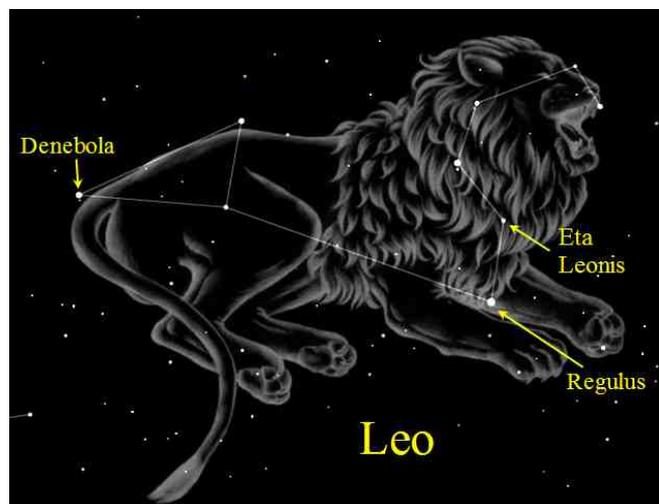
Our meetings are now going to alternate months, as we find the weather is calling us out more to observe than the power tools are calling us in to build (stuff). So, the next meeting will be at the end of the May, on the 30th. If you have a need or idea for your scope or gear, that you want to build, this is group you want to be a part of. Check it out. More information on the ASEM website, under the DIY-ATM SIG page, at:

<https://sites.google.com/a/aseonline.org/ase-intranet/Home/ase-s-sigs/atm-sig>

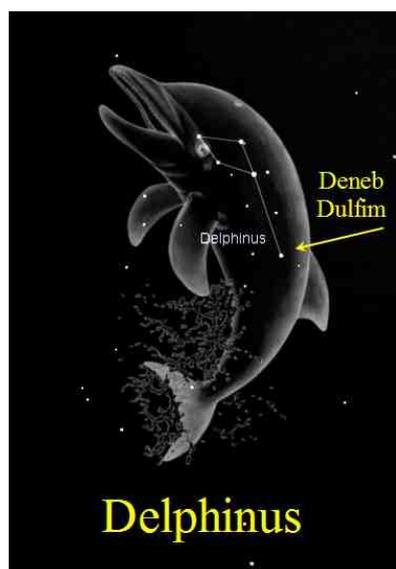
REGULAR CONTRIBUTORS OR USUAL SUSPECTS - YOU DECIDE -

MARV STEWART (GENERAL ASTRONOMICAL RACONTEUR)

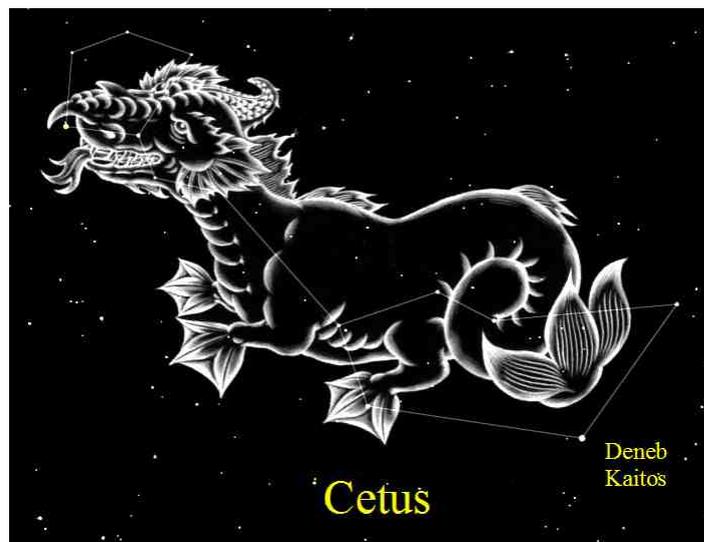
The constellation we know as Leo the Lion, was recognized as a lion over four thousand years ago. This makes it one of the oldest configured constellations in the sky. The last star in the lion is Denebola, which is Arabic for "tail of the lion". There are other Denebs also, since Deneb means "tail", they are all the last star in their constellation.



Deneb Algiedi, the goat's tail, in Capricorn.



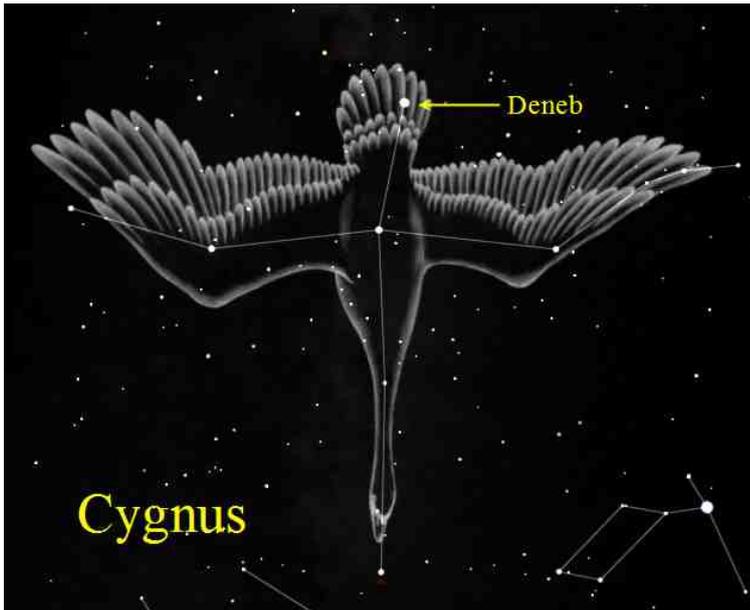
Deneb Kaitos, the whale's tail in Cetus.



The distinctive yet diminutive Delphinus the Dolphin, has a tail. Its name is Deneb Dulfim.

Aquila the eagle has a tail and its star is called Deneb Okab.

And of course the most famous tail of all: Deneb in Cygnus the swan.



In ancient Egypt it was believed that the Sun was born at the time of creation near Denobla. I really have no idea why but I have often wondered if it is because the fall equinox occurs just below that bright star.

The Brightest star in Leo, Regulus, is on the ecliptic. Every month the Moon passes near it. And when they are in the neighborhood so do the planets. Regulus is not the stars ancient name. Ptolemy referred to it as Rex because it was considered the King of stars and until just over 300 years ago that belief held. It was Copernicus that called it Regulus, and that is what it has been ever since.

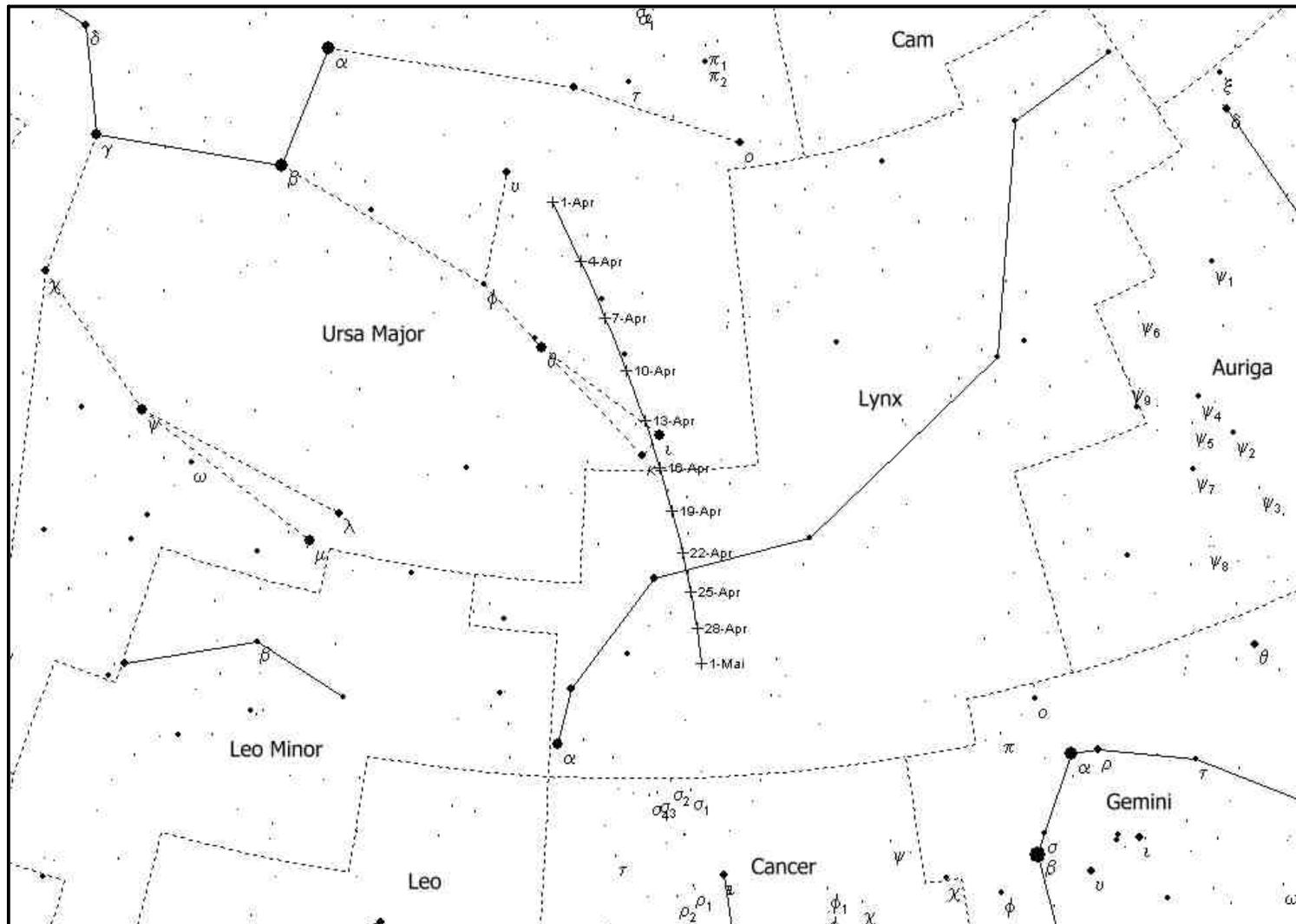
Just above Regulus is Eta Leonis which has a visual magnitude of 3.51, but its absolute magnitude is -5.60. If it were placed at the distance Regulus is from us, 85 light years, it would out shine Venus by 50 times and be visible in the daytime. It is 5,600 times more luminous than the Sun and thankfully about 2,000 light years away.

Above Eta Leonis is Algeiba, not my best subject in high school, although I liked geometry. May the night skies of April skies be clear ones.

COMET WATCH

Still visible this month is Comet Garradd. It is currently just a mag 8 fuzzball in Ursa Major heading into Lynx:

<http://www.ki.tng.de/~winnie/kometen/aktuell.html>



CALENDARS

CLUB

Date	Event
5	Beginner Meeting 7PM
14	Membership potluck 6PM. Entertainment (?) 7PM
17	Digital SIG 7PM The topic of the meeting will be solar imaging and planning for the solar eclipse & transit
	DIY-ATM SIG – None this month

All 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 ;)

OUTREACH (VIA JIM TWELLMAN)

April 20th is going to be a big day for Outreach. Actually, other than the normal FNOHs (Friday Open House), it's the only day for scheduled Outreach events in April. Here's the timing for the 20th.

Time	Event	Notes
1PM – 3:15PM	DuBray Middle School	Ha and plain white-light filtered scopes needed (3-4).
7:30PM - ?	Cub Scouts at Broemmelsiek Park Friday Night Open House	Expect 40-50 from this one group alone

ASTRONOMICAL EVENTS FOR APRIL (VIA MARV STEWART)

Date	Event
1-3	Venus and the Pleiades show (See next page)
10	Astronaut Sandra Magnus to speak at the James S McDonnell planetarium. See note below
15	Saturn at opposition rises in the east at sunset.
16	Mars at West end of retrograde loop. Begins moving back East.
17	The variable star Algol in Perseus is at its minimum brightness at 9:44 CDT.
21	New Moon so it will be very dark tonight. If you're lucky, you might hear Jim Twellman.
22	Several things today: <ul style="list-style-type: none"> • The Lyrid meteor shower peaks this morning right after midnight. • Later today, don't miss Jupiter near the crescent Moon in the west at twilight.
23	Watch the thin crescent Moon as it travels. Tonight it will be just east of the Pleiades.
24	Venus will be above and west of the Moon's crescent.
28	Astronomy day.
30	the Moon will form a triangle with Mars above and to the left and Regulus above and to the right

Note from the ed: Consult your Ottewell Astronomical Calendar for a number of interesting planetary events this month.

Astronaut Sandra Magnus to appear locally

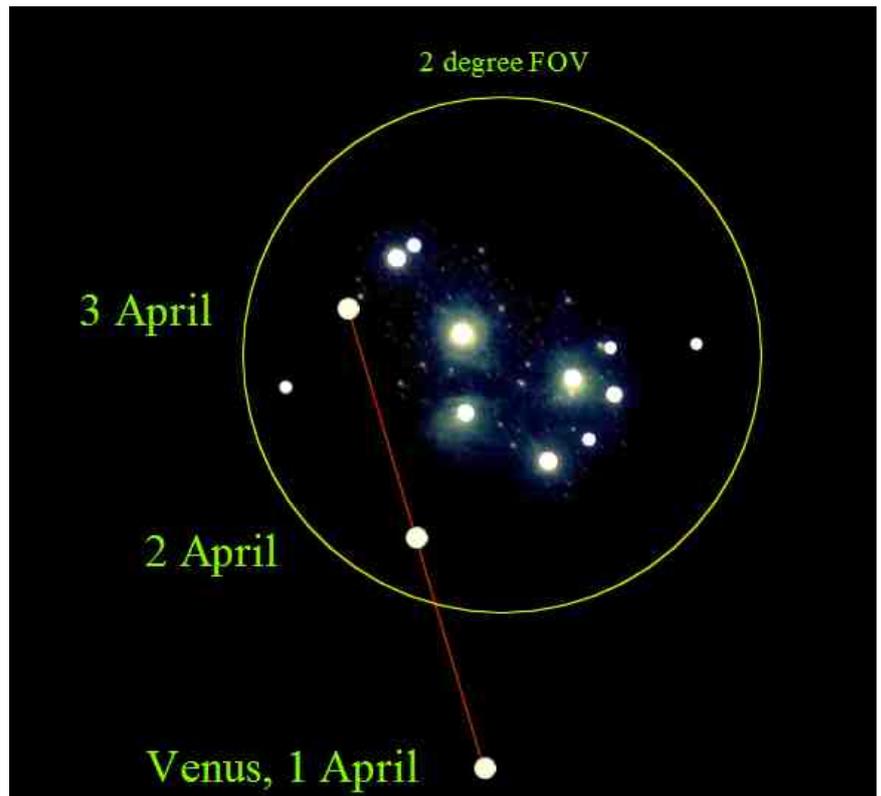
The Saint Louis Astronomical Society has booked local astronaut Sandra Magnus for a public talk April 10th at the Ortwein star bay in the James S McDonnell planetarium (St Louis Science center). Talk starts at 7pm, seating begins at 6PM on a first come first serve basis. 200 seats available.



ASTRONOMICAL EVENTS FOR APRIL (CONTINUED)

Venus and the Pleiades put on a real show at the beginning of April. Starting the first, Venus is within one degree of the Pleiades. The second finds it within a two degree field of view centered on the Pleiades and on the third; Venus is buried in 'em! This type of event occurs every 8 years. Go to pages 13 and 50 of your Ottewell calendar for more information on the cycles of Venus. The images below show the view at 8:30 PM local time on the first, second and third of April.

[editors note: The following description was submitted by Larry Stedman in the Edmund Astroscan YAHOO group. While Larry is not an ASEM member, his description was just too good to pass by. Image from StarryNight Pro. 9PM each night]



Over the next several nights, Venus snuggles up closer and closer to the Seven Sisters, even passing through M45's outskirts, in a close conjunction. The 'Scan with its wide field of view makes it easy to find and see the duet (or should that be "octet"?! :-). (Or, perhaps, minuet! :-))

This conjunction is just what the Astroscan is designed for... I encourage everyone to take in this view and show it to family and friends. It's early evening viewing, even in twilight, about as easy as stargazing gets... just look due West as the gloaming comes on. Even to the naked eye, the view will be grand. Venus will get closer each evening. (By the way, all three designations are for the same object-- the Pleiades, the Seven Sisters, and Messier #45--well, M45 is the entire star cluster with scores of stars.)

Jupiter's farther down, but unmistakably bright, too. The two planets make a great astrophoto opportunity-- even with a smartphone's camera! With a "real" digital camera, you can also just take a quick snapshot-- or set it on a window sill or mini tripod for a longer exposure to capture the star cluster, too. Use your camera's self-timer feature (so vibrations from pressing the shutter button settle down) and depending on how dark it is, you can vary the exposure time, say from 10-15 seconds to capture the Pleiades along with the Hyades, too! Those are the two nearest star clusters to us, if I'm not mistaken (and one doesn't count the Ursa Major moving group).

You also could try holding up the camera to the eyepiece to capture Venus and the 7 Sisters-- not sure that will work, but maybe you'll get lucky. However, it certainly works with snapping photos or videos of the Moon. If you haven't tried that yet, I encourage it, too! The result feels like you're Michael Collins orbiting the Moon while Aldrin and Armstrong are cavorting down below.

CLUB NOTES

From Carla Kamp, Hospitality director:

David Lloyd will be bringing Chicken Pot Pie for the April potluck main dish! We do need volunteers for the months to follow. Please help by dropping a note to hospitality@asemonline.org or by signing up at the general meeting.

As a side note, the next time someone brings a Spaghetti main dish; here is a short documentary on how spaghetti noodles are obtained: <http://tinyurl.com/potluck-spaghetti>



Merchandise:

There have been a few people ask about ASEM shirts, if there is enough interest we can place an order, have them let me know so I can get an idea of how many are interested.” Again, send a note to Carla at the above email address or let her know at the April meeting.



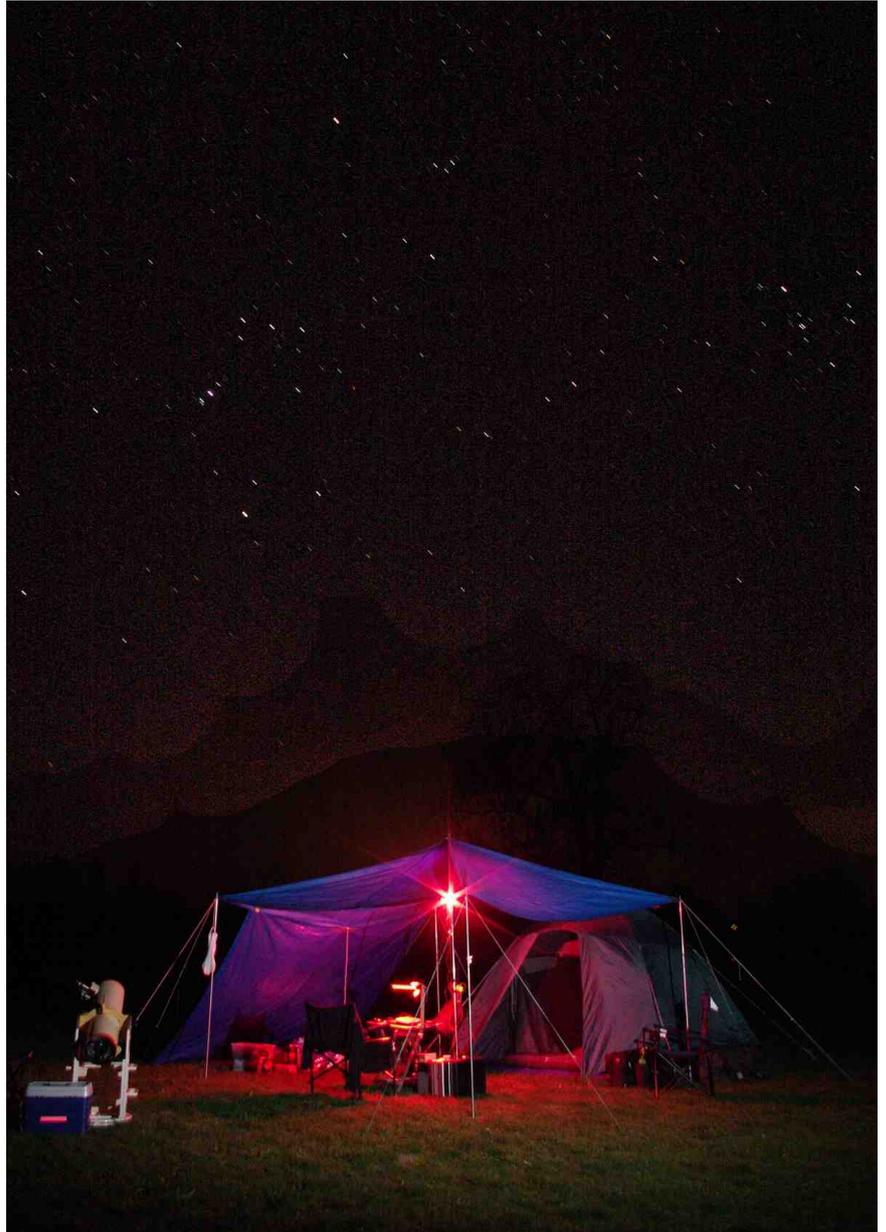
Beginning at the April meeting, solar observing viewers will be available for \$1.00 each. These viewers are quality products from Thousand Oaks and can be used for the upcoming Solar Eclipse in May and the Venus transit in June. Quantities are limited so come to the meeting and get them while they're hot (and available). If you would like to reserve a pair or place an order for multiple units, please contact Grant Martin at aclara@sbcglobal.net He will be placing the order on 2 April.

MEMBER NOTES

“Camping season has started! In fact, the winter was so mild, we have ticks, chiggers and mosquitoes out in force in March already!” So reports Grant Martin who attended the annual Sangamon Astronomical Societies’ Messier Marathon at Jim Edgar Panther Creek state park. He continues:

“The weather looked ‘iffy’ for March 23rd – 25th but what the heck, I took a chance and it paid off. While not stellar by any means, there were enough sucker holes to get some quality observing in. Space precludes a full list and description of the objects observed – not that I was able to observe anything you have not seen before. There were enough clouds to prevent completion of a full marathon. Only Tony Hopp from SAS and I were present. Apparently, the event had been canceled while I was on the road so I didn’t get the word until I returned Sunday night. It was definitely a great “shakedown cruise” for the upcoming camping season and we did have a blast.”

Those of you who have been to Panther creek will recognize “Tarp City” in the image on the right. That’s Grants’ “home away from home” at these events. Anyone hazard a guess at the constellations in the picture over his “home”?



If you attended the January general meeting, you witnessed Chuck Simms give a demonstration of how an iPad can be useful at the telescope. A member sends in a note regarding a special offer from Apple products:

Since Sunday April 1st is Palm Sunday, Apple products is announcing a special one day price discount. If you bring in an old Palm Pilot, they will give you \$100 off the price of a new iPad4.5.

CLUB CONTACTS

MEMBERSHIP

Membership issues can be addressed through our executive director Stacy Thater (pronounced “totter”) at these addresses:

Email: sthater@stchas.edu

Snail mail:

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

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

ENTERTAINMENT

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

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

and click “Join”

Value added bonus: Win a free pair of Solar glasses. The rules are simple

- All you have to do is send an email to newsletter@asemonline.org and list the 4 April fools items embedded in this newsletter. If you correctly identify all four, you can pick up your treasure at the May general meeting. Contest ends April 30 2012.



Think Clear, dark skies