**September Calendar**

*Social*

Our September meeting will our annual picnic in the park, Broemmelsiek that is. See more details in the ED’s notes.

FNOH open house has been reestablished and is ongoing with social distancing protocols in place.

The Weldon Spring Site Interpretive Center remain closed and all associated programming is cancelled until further notice.

Updates will be posted to the DOE LM website: [https://www.energy.gov/lm/office-legacy-management](https://www.energy.gov/lm/office-legacy-management)


A newsletter is only as interesting as the material sent in by contributors.

Would you like earn the eternal gratitude of your fellow club members and intergalactic recognition in our newsletter? Send a note to your friendly editor on any astronomy related subject at newsletter@asemonline.org. I’ll get it posted in the monthly newsletter.

Your editor at large (not large editor),

Jim Curry
Greetings!

This has been a tough year but ASEM has managed a few bright spots so far. We resumed our public outreach on Friday Nights (FNOH) in early June, and we have rolled out the 32" successfully to visual use by the public. In addition, we have evolved safe practices at our events by socially-distancing (or wearing face masks when unable to do so), providing hand sanitizer, spraying eyepieces between family units, and biggest of all was converting our C-14 to provide large TV screen usage. Thanks to all who help out! We need you!

September brings us cooler weather. We usually help out at kids camps at Cuivre River State Park, but I do not see that happening in 2020. We did however agree to engage the public at Broemmelsieck Park for an event along with the St Charles County Chamber of Commerce. **Planned date is TUESDAY September 8 at 7:30 PM. (the backup date is Thursday September 17). We need at LEAST 5 telescopes for the 100 people who signed up.** I have set an attendance limit of 100 with them. With the 32" taking 2 people to use, that means a minimum of 6 volunteers (on a "School" night). Wouldn't hurt for us to have more telescopes or greeters there if we could. The event is on our club calendar. Please either RSVP on the calendar that you will attend and help out, or contact me directly please. I'd really like to have both the 32" and the C-14 going, plus some "regular" sized scopes to show...
them Jupiter and Saturn for most of the night. Sunset is 7:21 PM and the moon will not rise until about 10:30pm or later. I am hopeful that some good things will come out of this event to benefit ASEM.

Our annual PICNIC will take the place of our "regular" ASEM meeting - the second Saturday of the month. While the Weldon Springs Interpretive Center is still closed due to Covid-19, our picnic can be an OUTSIDE event and we can follow social-distancing guidelines. In the past, ASEM has typically provided a BBQ meat, and members provided side dishes. Due to the virus, **ASEM will provide a whole meal.** The plan is for BBQ Pork Steak, plus sides of baked beans and potato salad. ASEM members should bring their own chairs, drinks, personal appetizers (not to share!), and any other dishes for their own personal consumption if the menu does not fit for you. Our picnic will be at Shelter #4 at Broemmelsiek Park, which has two shelters with picnic tables.

Please comply with Social Distancing guidelines OR wear the face mask to keep this wicked virus down!

Thanks,

Jim Twellman

Executive Director

Alliance for Astronomy (dba Astronomical Society of Eastern MO)
Broemmelsiek, Danville (and other) Reports!

Submitted by our Star Party Animals

August 29

Hello Jim! Last night we had 69 people at FNOH. Members present: Jim & Yvonne Rowe, Stacy Thater, Fred Schovanez, you and me.

There you are!

Donna Barnes

August 21st:

Hello Jim: Last night we had 117 people come to FNOH including members Jim and Yvonne Rowe, Jim Stenzel, Kirk Steinbruegge & his mom, Christine Zhang, Chuck Sims, Lisa and I, and Tom Richards, and you.

Donna Barnes

August 18th and 19th – Danville:

The weather has been great – the viewing not so much.

Danville had a full house on Wednesday night. It was in the 60’s and dropped into the 50’s. Seeing was just so-so – definitely not close to the CSC prediction. There were only a couple of imagers left in the morning.

Still having everything loaded up along with an even better forecast predicted, I went to Danville Thursday night as well. There were just two of us. Dew started falling pretty early and the seeing appeared to be worse than the night before. I fell asleep near 10:30 (too old to do this two nights in a row it seems) and I think the visual person took off fairly early probably due to the reasons I mentioned. I imaged until morning again but there were some thin clouds at times and a humidity well above 90% with a lot of fog driving out and home.

One thing I did notice while loading up is that it is still darker up there with the sun coming up than at home. I had all my lights on and I could still see a lot more stars with the moon 12 degrees below the horizon than when I have no moon at home in the middle of the night.

Dan Crowson
ASEM Loaner Equipment
By Chuck Simms

Upcoming Library Events
Please follow us on
Library Telescope Facebook page

• Events have been halted due to COVID 19 through the end of the year.

• Please see the Library Telescope YouTube channel. We have created a number of videos for the public on how to use the telescope. Please follow us @ https://www.youtube.com/channel/UCBrrzBNethHg4B3pcRJNsN9g
Why 24 hours defines a day

Way back in olden times (before TV and the internet), the Egyptians figured out that the sun appeared in the same place in the sky each day (with a little slip). They determined that for all intents and purposes, that time took 24 hours. But the one big problem they had was they didn't know what to call it. After debating and the usual arguing and name calling, the sun was setting so they decided to call it a Day.

Here's an excerpt from a nice, serious and accurate article about why time is structured the way it is today:

"The origin of our time system of 24 hours in a day with each hour subdivided into 60 minutes and then 60 seconds is complex and interesting," says Dr Nick Lomb, consultant curator of astronomy, from the Sydney Observatory.

Our 24-hour day comes from the ancient Egyptians who divided day-time into 10 hours they measured with devices such as shadow clocks, and added a twilight hour at the beginning and another one at the end of the day-time, says Lomb.

"Night-time was divided in 12 hours, based on the observations of stars. The Egyptians had a system of 36 star groups called 'decans' — chosen so that on any night one decan rose 40 minutes after the previous one.

"Tables were produced to help people to determine time at night by observing the decans. Amazingly, such tables have been found inside the lids of coffins, presumably so that the dead could also tell the time."

In the Egyptian system, the length of the day-time and night-time hours were unequal and varied with the seasons.

"In summer, day-time hours were longer than night-time hours while in winter the hour lengths were the other around," says Lomb.

The rest is as nice a read as the first.

Source:

https://www.abc.net.au/science/articles/2011/11/15/3364432.htm#:~:text=Our%2024%2Dhour%20day%20comes,on%20the%20observations%20of%20stars.
As we know now, regional wide outreach in support of the Perseids meteor shower was called off this year. Because COVID. After the announcement in the August ASEM ZOOM meeting, several members discussed possibly distancing themselves at either Whiteside or Danville. The discussion kind of moved to the STLAstronomy group on Groups.IO. Interest was high for Whiteside, including maybe a socially distanced tailgate session beforehand - like a picnic separated by counties.

Segue to Aug 12th. The weather forecasts were kind of "iffy" all week long but the Satellite images were showing possible clearing by sunset. I figured what the hell, if we’re clouded out, I can setup a small enclosed fire and we can chew the fat for a while - kinda like at a camp out. Socializing in person is so much better than socializing via Zoom. But Zoom is better than nothing.

At 3PM, I arrived. To an empty observing field. Which was OK, I had my choice of sites AND plenty of time to setup. I have an iOptron SkyGuider pro ana Canon T6S DSLR with 8mm fisheye lens. What more do you need to get some excellent meteor photographs? OK, an automatic timer-based shutter release, A dew heater, battery power, tripod, clear skies and meteors. Like minded companions would be nice too.

The day was relatively free of clouds. The clouds that were present were the type we see disappear a little after sunset. This was a good omen, something had to be missing. I took my time setting up. It’s nice to get somewhere early and not have to rush. I setup a time-lapse for the sunset. That would be the first confirmation everything would work well. I got a pretty nice set of images confirming my camera setup. So if anything went wrong, at least I had that.

Right at sunset a car came driving down the road. Maybe a fellow observer, maybe a curious onlooker. It was Steve Boerner! Great, the party is starting. Steve and I jawed a while. He too was out to test some equipment (A nice scope with a nice Alt Az mount, an even nicer camera, and some way cool accoutrements).

The sun had fully set and the clouds had left so we went about setting up for the night. It was still young and the Perseids weren’t scheduled to start for a few more hours. That’s when we expected the hoard to descend.

I setup the SkyGuider, camera, and self-timer and looked for the dew heater. That’s kind of critical with that big lens. Without a dew heater, it’ll dew up faster than [fill in appropriate analogy here]. After digging, I found it right where it was supposed to be and its’ setup went fault free.
So now I'm good to go. Everything's working and while I'm running the first tracking test, I moseyed on over to see what Steve was up to. He had it going man. A laptop was driving his mount, focuser and camera. He showed me some REALLY neat stuff. Too detailed to describe here but he's the man when it comes to this kind of thing (not like the other members of the digastro group are chopped liver but it's Steve Boerner).

We talked a bit about what was up. I brought binos to do some bino astronomy and found that Perseus had cleared the tree line and was now visible. GREAT! Wait, what? Perseus was up. OK, but usually, during any popular meteor shower, we generally see a number of harbingers of the event. And up till now, all we saw were only satellites and the flashing lights of aircraft transiting "Flyover country".

Meh...nothing too unusual here. It happens. It'll pick up. I went back to the camera to verify things were still working and reposition it for the Perseus radiant. Having got it started, I had nothing else to do but bother Steve and look up for meteors. Which is what we did for a bit. Steve took a break and we passed binos back and forth and followed the sage advice of Jack Horkheimer.

After about an hour, Steve and I had seen a few sporadics and maybe one Perseid and were kind of looking at each other wondering if we had the right date. And just as Steve looked up and I looked down, he let out a "WOW" that belied a whopper of a meteor. And as is always the case, I looked up...and saw nothing. It always happens that way. It’s either behind your back, in an area you’re not watching, or right when you look down for something.

This went on for a few more hours and by 4 AM, Steve was ready to go and my fisheye had dewed up. It's a big lens and needs a lot of heat to keep it free. I think next time I'm painting the number 11 on the dial right after the 10 and using THAT setting to keep the dew off!

Remember when I said we were expecting a number of people to show up? Welp they didn’t and it was a quiet, peaceful, clear observing night. You know what else DIDN'T show up? Yep, the Perseids. One of the few times I have everything I need, it all sets up just fine, everything runs fine, great skies are in place and everything is set to catch one of the best meteor showers of the summer. Something ALWAYS goes wrong doesn’t it?

Aftermath (Epilogue?): When I got home, I found had captured more than 2000 images on more than 11 gigabytes of disk space. TRIFFIC! that's a lot less than I usually have to deal with from a night of imaging. The resulting time lapses looked REALLY great! In fact, I have a nice sequence where some high cirrus clouds were backlit by a waning crescent moon one day after last quarter. I am pretty happy with the equipment and setup. Unfortunately, I guess the Perseids were camera shy as I got only one confirmed Perseid and two suspects with two sporadics.2000 images over 5 hours and THIS is the best I can get?

When I told Steve, he just said "Now you know why I don't do meteor showers". I knew he was right because I stopped photographing meteor showers back in the '90s. Not because I was tired or found other things to photograph, No, it was because it got too expensive for film, processing, and printing just to find I not only DIDN'T capture a meteor, but all I really got were nothing but trails of red & white flashing navigation lights - I've got a bankers box full of negatives & prints to attest to THOSE results.
So why am I picking it back up? Easy, digital images cost nothing to take; They are easy to review and delete if they aren't worth keeping; Post processing software can do wonders at making a so-so image look a LOT better as a print.

And then there's the comradery (when it shows up). For most of this avocation, I'd been solo. A "Member at large" as it were. Doing things like this as a member of a group with a common interest, makes it so much more satisfying.

Next up: The Leonids 😊
Congratulations to Jim Twellman! After many years of counseling, Jim finally stared down the moon and completed his AL Lunar Program Award. This was the last program he needed to complete his AL Master Observer Award which was also awarded at the August ASEM Zoom Meeting. In September, 2005, Jim earned the Messier Program Award to start his journey which took 15 years.

Congratulations to Amy White for being nominated for the AL Mentor Award.

Congratulations to John Galla on earning the AL Bino Messier Award.

Dan Crowson earned the Herschel Society Silver Certificate for imaging 1200 of the ~2400 Herschel objects. [Image galleries here - Herschel 400, Herschel II and Herschel Silver and Gold]

Dan Crowson’s Danville image of Sharpless 9 can be found in the Gallery section of the September, 2020 issue of Astronomy Now - https://astronomynow.com - page 109.

https://www.flickr.com/photos/dcrowson/50268186623/sizes/l/


https://www.flickr.com/photos/dcrowson/50192347072/
Due to less air pollution, the latitudes and longitudes are now visible in the sky.

All Beginner Meetings are suspended until the Weldon Spring Center reopens.

Alfred Schovanez is the mentor for the ASEM Beginner Meetings. These are scheduled for the first Thursday evening of every month in the meeting room of the Weldon Spring Center.

You don't have to be a beginner to come to the meetings. Many an old pro will admit that there is always more to learn. There is always time to address issues and questions.
ASEM ATM-DIY Special Interest Group

No ASEM ATM-DIY virtual Zoom meeting this month.
August’s Zoom meeting consisted of a presentation on user-requested PixInsight topics by Adam Block (https://adamblockstudios.com/). The video of the presentation can be found here - https://youtu.be/8wYX-ud9b50.

September’s meeting is Tuesday the 15th. We’ll continue using Zoom and a link will be sent out to all members once I have it. Alistair Symon will start the meeting with a talk about deep wide field imaging. Alistair’s website can be found here - http://www.woodlandsobservatory.com/. Bill Neubert will follow with a short presentation on eyepiece projection with modern cameras that have 1080p mode.

I’m looking for topics for October on. Zoom allows us to bring in speakers and experts from anywhere so if you have an interest in something, please send me an email (dcrowson at crowson dot com) or post in the group below.

The latest Digital SIG news can always be found in the ASEM Digital SIG group here - https://groups.io/g/ASEMDigitalSIG. Discussions in the last month have been on images, what science can be done, new equipment and various other things.
# Equipment Check Out

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 inch scope</td>
<td>Nolan’s 12: comes with small dolly, eyepieces, collimator and more.</td>
<td>Khalid Khan (7/17/2020)</td>
</tr>
<tr>
<td>Big Binoculars-2x100 Barska</td>
<td>2x100 Barska binoculars</td>
<td>David Lloyd (11/27/2019)</td>
</tr>
<tr>
<td>Canon T11 camera</td>
<td>Canon T11 camera</td>
<td>BP-127 [5/16/20]</td>
</tr>
<tr>
<td>Celestron StarHopper 8&quot; dob</td>
<td>Celestron StarHopper 8&quot; dob (Tetrad, 25, 35 &amp; 9.7mm ep)</td>
<td>Justin Thompson (7/13/2019)</td>
</tr>
<tr>
<td>Coronado PST</td>
<td>Personal Solar Telescope</td>
<td>Don Ludwig (8/2/2019)</td>
</tr>
<tr>
<td>Denkmeier Bino-Viewer</td>
<td>Denkmeier Bino-Viewer</td>
<td>Stacy Thayer (8/8/2019)</td>
</tr>
<tr>
<td>Denkmeier Bino-Viewer 2</td>
<td>1.25&quot; Denkmeier Bino-Viewer</td>
<td></td>
</tr>
<tr>
<td>Eye-piece/Filter kit</td>
<td>various 1.25 inch eyepieces &amp; filters (O III, H Beta, UHC)</td>
<td>Amy White (12/3/2017)</td>
</tr>
<tr>
<td>Lunt - Stack Filter</td>
<td>Stack filter used on Lunt Solar telescope</td>
<td>Chuck Simms (8/2/2019)</td>
</tr>
<tr>
<td>Lunt Solar Telescope and mount</td>
<td>L550F Ha filter - 60mm</td>
<td>Chuck Simms (8/2/2019)</td>
</tr>
<tr>
<td>Orion SkyQuest XI6</td>
<td>6&quot; dob with 10mm &amp; 25mm eyepiece.</td>
<td>Mary Anderson (6/11/2019)</td>
</tr>
<tr>
<td>SBIG STL-1001 camera</td>
<td>SBIG STL-1001 camera</td>
<td>Kirk Steinbrugge (5/12/2018)</td>
</tr>
<tr>
<td>Star Atlas</td>
<td>Herald-Bobroff Astroclans</td>
<td></td>
</tr>
<tr>
<td>Starmaster 14.5&quot; telescope</td>
<td>Starmaster 14.4 inch telescope</td>
<td></td>
</tr>
<tr>
<td>WC2-Meade Ultra Wide Angle 4.7mm</td>
<td>WC2-1.25&quot; Meade Ultra Wide Angle 4.7mm Multi-Coated eyepiece</td>
<td>Kirk Steinbrugge (10/14/2017)</td>
</tr>
<tr>
<td>18&quot; Dob - Obsession</td>
<td>18&quot; Dob - Obsession</td>
<td>Fred Schovaney (4/5/2019)</td>
</tr>
<tr>
<td>Filter set of 5 - 1.25</td>
<td>Filter set of 5 - 1.25</td>
<td>Mary Anderson (7/4/2020)</td>
</tr>
</tbody>
</table>
These are a series of advertisements via email:

Folks

Jerry Kelley’s daughter donated his 10” LX50 scope to our club about a year ago, but we have no hand controller for it. As you might expect, these are hard to find. For those of you who peruse classifieds (CN, AstroMart, etc) please be on the lookout and buy one “on sight if seen” and under $80. I will reimburse thru ASEM.

JimT

I have a LX-200 for sale.


Jim Roe

Please shoot me a note if your ad is no longer current

jjc@structureguard.com
ASEM Members Photography

A section for ASEM members to distribute their photographs within the Society. Whether you’re shooting digital, film or working in charcoal (hand sketching), this page(s) is for members to show us what you’ve seen and how you recorded it. Sunsets, supernovas, sundials, Stonehenge. Crepuscular rays, planetary alignments, or Markarian’s Chain. If it’s something we have to look up to see it will probably interest this crowd of inquisitive folks.

Pluto
August 29th - October 30th, 2016
Animas New Mexico
Astro-Tech AR 2CT - SBIG STL11K30M
Luminaire 16 x 133135g pleased 151
Dan Crowson - dacrowson@comcast.com

Pluto Retrograde – Dan Crowson – Animas NM
https://www.flickr.com/photos/dcrowson/50288307711/
NGC 2442 – Dan Crowson - Rio Hurtado, Chile
https://www.flickr.com/photos/dcrowson/50286272588/
M101 – Michael Gratiot – Animas NM
IC 1848 – Bill Neubert – Buford Mountain Conservation Area
https://sites.google.com/site/wjnastronomy/announcements/2020-08-25ic1848thesoulnebula
NGC 6522 + 6528 – Dan Crowson – Danville Conservation Area

https://www.flickr.com/photos/dcrowson/50260423762/
NGC 6340 – Dan Crowson – Animas NM

https://www.flickr.com/photos/dcrowson/50259130588/
NGC 6744 – Dan Crowson – Rio Hurtado, Chile
https://www.flickr.com/photos/dcrowson/50232419013/
Membership

Membership issues can be addressed through our executive director Jim Twellman at these addresses:

Email: jtwellman@aseonline.org.
Snail mail:
   Alliance for Astronomy (ASEM)
   8 Rudder Court
   Lake St. Louis, MO 63367

Committees

Comments, questions, suggestions and money (just kidding) may be sent to the following addresses:

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

Outreach@aseonline.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

webmaster@aseonline.org
   Kirk Steinbruegge is now our webmaster. Shoot him anything you want posted on our Web page

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 https://stlastronomy.groups.io/g/main and click “Join”

Think Clear, dark skies