



Peoria Astronomical Society, Inc.

P.O. Box 10111 Peoria, IL 61612-0111
Section of Peoria Academy of Science
Affiliate of the Astronomical League

www.astronomical.org

STARLITE

FALL, 2019

WHAT'S IN THIS ISSUE?

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- Editor's Notes
- Address/email changes
- Future Editions of the Starlite
- New Members
- 2019 Meteor Shower Schedule plus Comets
- Monthly's (September)
- Presidential ramblings
- Photos/Articles for Website
- Caterpillar Matching Gifts
- Northmoor Observatory Blog Post
- Reflector
- NCRAL Newsletter (how to sign up)
- ICC Fall Star Party dates
- Lakeland Park Public Star Party - 9/21 in Canton
- International Observe the Moon Night - 10/5 @ Northmoor
- 2019 PAS Banquet 9/14 @ Bernardi's
- Mercury transit - 11/11
- Programs for 2019
- Board Meeting Information and Minutes
- Northmoor Hosting Schedule
- Jubilee Mowing/Maintenance Schedule

Officers:

President: Dan Son, sonshine1992@gmail.com
Vice-President: Jesse Hoover, hooveje@gmail.com
Secretary: Phil Burroughs
Treasurer: Brian Hakes, bhakes02@comcast.net

Directors:

Acting Parliamentarian: Dave Monroe, dave.monroe@comcast.net
Nominating Chairman: Tatiana Johnson, 2gsheps@gmail.com
Legal Agent: Dave Monroe, dave.monroe@comcast.net
Northmoor Observatory Chairman: Open
Jubilee Observatory Chairman: Robert Pauer, sbpauer@winco.net

PEORIA ASTRONOMICAL SOCIETY IS NOW ON FACEBOOK:

www.facebook.com/PeoriaAstronomicalSociety

Editor's Notes:

Looking forward to cool weather and the Mercury transit! Thanks for your dedicated support to the society!
-Jesse Hoover

PLEASE NOTE:

Please notify Scott Swords at sswords3@comcast.net if you will be getting a new mailing address, email address and/or phone number. It is important that he has your personal information correct so you will continue to receive the Starlite and the Reflector. He would also like to receive any changes to your e-mail address as this is part of his database.

If you would like to join the Peoria Astro e-group or if you have changed your e-mail address, please notify Mike Frasca at mfrasca@att.net with your e-mail address (for in-club use only – not given out to other sources). He does not need your mailing address or phone number. If you are not a member of the e-group, you may want to consider joining. A great deal of club activity information is sent via the e-group. And by the way, it is free to join!!!

FUTURE EDITIONS OF THE STARLITE NEWSLETTER

New delivery method for the Starlite:

Starlites will be emailed to our Yahoo Email Group, and a copy will be posted online for download on our website.

Benefits from joining the email group include the electronic Starlite and also receiving up to date information for star parties and other important communications from the PAS.

New Members:

The Peoria Astronomical Society welcomes new members:

P.Keith Heiden – Chillicothe
Derek Williams – West Peoria
Shannon Wiltz – Bartonville
Davio Kampa – Peoria

2019 Meteor Shower Schedule: Scott Swords

Over the years I have used many meteor shower schedules. Below is by far the best one I have used.

<http://skytour.homestead.com/met2019.html>

Scott

<http://cometchasing.skyhound.com/>

Great web site that has finder charts for visible comets.

Dan

September Monthly: Gary Bussman

On Friday, September 20th, we will have the ICC star party out at Jubilee observatory. The rain dates are the 21st, 27th and 28th. More to come on this from Jeff Constable in the near future to confirm dates.

There will be a star party held in Canton, Illinois on the night of Saturday, September 21st. Dan Son will be communicating on this event coming up.

Just want to give everyone a heads up on the Transit of Mercury with the sun on the morning of November 11th. It will already be in progress when the sun rises that morning around 6:43am. Mercury will be close to the center of the sun around 9:20am. It will conclude around 12 noon. Hope for clear sky's. I will be giving more information on this in October.



Gary Bussman



Presidential Ramblings

I am sitting here doing Starlite articles, writing up letters for the Banquet and other work and hoping everyone had a good summer. I know its September but the nights are getting cooler but Fall is just around the corner and Christmas is a little over 100 days away. How many days did you get out your equipment and head out to a dark sky spot and enjoy looking up and thru the telescope? If like me not as often as we would like and this year, so many wet weekends.

In November a new observation can be made and that is the transit of Mercury across the Sun. I must be getting old for I remember going to ICC and doing a public observing for the transit of Venus the 1st time. I hope to get the day off but if not will be up early to see some of it. Keep in mind we have a few weekends left for Northmoor and I encourage everyone to come out and enjoy the view and bring your friends.

This is my last article as President and I thank everyone for their help when possible to make our group a more enjoyable one and do some work around domes to make things run better. A lot of hands make the work light is true with PAS as it is with all the things we enjoy and do.

Dan Son

Submission of photos / article content for the website: Jesse Hoover

If you have taken a nice photo that you would like to display on the PAS website, please send these to our webmaster Stan Pope stan@stanpoppe.net. Photos can be anything relating to astronomy. Maybe you snapped a good photo from a star party, club event, personal viewing, etc. Any astrophotography is encouraged! Also, if you have educational content, tips, techniques, lessons learned, or how-to articles with photos, we encourage that material also for the website. Please send these to Stan for addition to the website. Content is not limited to the website, and is encouraged in Facebook. If you have articles or pictures, we can also add them to www.facebook.com/PeoriaAstronomicalSociety
Note: Content posted on the website and Facebook will be made accessible to the general public.
Thanks!

The Caterpillar Matching Gifts Program: Brian Hakes

As of July 1, 2012 the Cat matching gifts program changed. Employees/Retirees are asked to submit matching gift forms electronically via the Caterpillar Foundation website, www.caterpillar.com/foundation. The process is easy. Once you made your gift to the PAS you can go online to the Cat Foundation website and complete the electronic form, there is no paper involved. Once the form is registered with the foundation they will notify the PAS and the treasurer will then verify the gift has been received. Because there will be no mailings, the turnaround time for the whole process will be negligible. This is especially advantageous at the end of the calendar (tax) year. This is an excellent way to support the PAS. If you can, please participate in this generous program. This is a great way to help the society and the promotion of astronomy in the greater Peoria area.

Northmoor Observatory blog post: Renae Kerrigan

Hi Everyone,

Like last year, I wrote a blog post about Northmoor Observatory and how people can visit. It was very popular on our museum's Facebook page – it was viewed by 16,700 people so far, and liked 200 times! That is just since it was posted on Monday at 11 am.

You can read the post here: <http://starsoverpeoria.blogspot.com/2016/05/visit-northmoor-observatory-this-summer.html>

Hopefully it will help let more people know about PAS and the observatory.

Reflector :

Reflector Magazine digital edition is available for download

You may access an archive of digital issues from the AL website by visiting:

<https://www.astroleague.org/reflector>

NCRAL Newsletter:

The North-Central Region of the Astronomical League (NCRAL) is made up of member societies... the six states commonly thought of as the Upper Midwest of the USA, plus the Upper Peninsula of the state of Michigan.

The PAS is a member of the NCRAL. Their Region Newsletter, also named "Northern Lights", has been resurrected and is better than ever! The latest **Summer 2019** issue is now available to read on their website can be found here:

<https://ncral.wordpress.com/newsletter-archive/>

Keep an eye out for the upcoming Autumn 2019 edition!

As members of the NCRAL, we are allowed to submit our content to their newsletter as well. So if you have really cool articles appropriate for the viewing of the larger regional society audience mentioned above... please send these to Carl.

NCRAL Northern Lights Newsletter

Carl J. Wenning, Editor in Chief
NCRAL Regional Representative
Twin City Amateur Astronomers
Bloomington-Normal, Illinois
Email: carlwenning@gmail.com

Add Your Email Address to NCRAL Member Database

Add your email address to the NCRAL member database now so that you can get direct mailings of NORTHERN LIGHTS and important and timely announcements about Regional conferences, star parties, and so forth. Your email address will never be shared with or sold to outside entities. Sign-up takes only about a minute. You'll need to provide your name, email address, astronomy club affiliation (including at-large), and indicate if you hold particular positions within your club. Go to the following case-sensitive URL to add your information to our database: <https://goo.gl/gS8SF>

ICC Star Party Fall 2019 Dates (@ Jubilee Observatory):

- Friday, Sept 20th (Primary Date)
- Saturday Sept 21st (rain date #1)
- Friday Sept 27th (rain date #2)
- Saturday Sept 28th (rain date #3)

Monitor e-group communication for go/no-go.

Lakeland park Canton Star Party:

I am not sure when this was last done (a star party hosted by a city), beside Astronomy Day events... but this is exciting to me. The Canton Park District is asking PAS to have our members bring out their telescopes to Lakeland Park on Saturday September 21st. Jesse Hoover and myself went to the site in 2018 and enjoyed the dark skies to the south, west and north. The town of Canton is about a mile away in the east. The Park District will publicize the event for all of Fulton County so the turn out may be huge. The Sun sets around 6:59pm on that night and the Moon will be 3rd quarter phase. I will be out there by 5pm but members with scopes can arrive 6:00 ish to set up equipment. Car headlights will not be anywhere near our scopes and observing eyes. I hope everyone with a scope will think about this event. The drive is about 40 minutes from downtown East Peoria, you can go out route 24 or route 116 thru Farmington. All PAS members are welcome and will have fun looking thru scopes and talking to others. Any questions, feel free to call me at 309-224-9150.

Update:

Well its a week away and a link to the map is here: <https://goo.gl/maps/cgjdccqLsFHuu8pi6>

Lakeland Park Drive is off Main St/ Route 78 and the park is about 1 mile down the road. Any question about how to get there, call me at 224-9150.

We have 4 scopes coming as of now, hoping for a few more!

Directions are...take 116 west to Farmington and turn right onto Route 78 to Canton, less than a mile south of Walmart is Lakeland Park Drive. Turn right onto it.

You can also come out route 24 thru Bartonville, turn right in Banner to stay on Route 9. Come into Canton and turn right onto Main st...go out North on Main till you hit Lakeland Park Drive. If you see Walmart you went too far.

Dan Son
224-9150

International Observe the Moon Night – Oct 5 2019 at Northmoor Observatory

The following is an article on the Peoria Library web site about International Observe The Moon Night. Please bring out your scope and set up on pm.the lawn around Northmoor for a fun filled night. Start time is 9pm so maybe set up around 5:30 to 5:45.

Join us for the 9th year of collaboration with the Peoria Astronomical Society as we celebrate International Moon Night at Northmoor Observatory. We will have a Moon Storytime (while it's still light out!), a craft (while supplies last!), and you will have a chance to look through the big telescope!

Peoria Astronomical Society members will be on hand to let us know exactly what we are seeing in the night sky and the view will change throughout the evening. Sunset is estimated for 6:35 pm.

The Northmoor Observatory is located in the Donovan Park on North Knoxville in Peoria. Park in the main parking lot and walk approximately 500 feet south to the dome. Flashlights come in handy for the walk across the grass. Bring a blanket or folding chairs to sit on the grass outside of the dome. This event is free and all ages are welcome!

****Weather permitting****

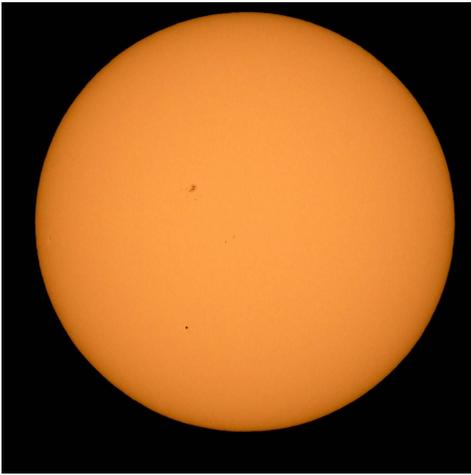
2019 Peoria Astronomical Society - Banquet!

**PAS BANQUET
Bernardi's
September 14, 2019**

This year we will be eating at Bernardi's in Lake of the Woods Shopping Center. We can meet and socialize before dinner from 5 to 6, Dinner will be served at 6pm and the business meeting will start around 7pm. This a great time to meet other members and talk with the lights turned on! More information will come later on food choices and letting me know who and how many are coming to this event.

Mercury Transit November 11, - Jesse Hoover

Photo Credit: (NASA/Bill Ingalls)



On Monday, 2019 November 11, Mercury will transit the Sun for the first time since 2016. The transit will last nearly six hours from start to finish.

The transit (or passage of a planet across the face of the Sun) is a relatively rare occurrence. As seen from Earth, only transits of Mercury and Venus are possible. There are approximately 13 transits of Mercury each century. Mercury won't transit again until November 13, 2032, so you don't want to miss the one this November!

For viewing the transit, you need to be able to safely view the sun, which requires an approved ISO 12312-2 solar filter for your equipment, (telescope or binoculars).

Due to the small size of Mercury, a telescope with solar filter is your best option for seeing the transit. When I viewed the 2016 transit over at ISU, I had my 8" newtonian with a white light solar filter, and used a 25mm plossl and utilizing the 2x barlow lens which was great for this. A couple club members have the APO refractors with a special Hydrogen Alpha solar filter which is even more spectacular of a view. This allows one to view the prominences and other features of the sun you cannot get thru a white-light filter.

Information on the time and location is at this website: <http://www.eclipsewise.com/oh/tm2019.html>

The image labeled: "Global Visibility of the Transit of Mercury on 2019 Nov 11" reinforces the fact that you can take a short drive east to Indiana if you want to view the entire transit. In Central IL, the transit will already be underway at sunrise, but we will still see the majority of the transit. I want to highlight from my past 2016 experience, that watching the first point of contact is the most exciting part!

Lessons learned: Make certain you know your location and the point of contact times, and make sure you are looking through the eyepiece **prior** to this point in time due to geographic positioning effects. If there is any hazy or moist atmospheric distortion at sunrise, I can only guess this would also slightly affect the size and shape of mercury.

The UTC times for transit are shown here:

<https://www.timeanddate.com/eclipse/transit/2019-november-11>

Wiki: https://en.wikipedia.org/wiki/Transit_of_Mercury

***Caution:** Looking at the sun directly or through a telescope without proper protection can lead to serious and permanent vision damage. Always use a certified solar filter manufactured to ISO 12312-2 and one that matches your viewing equipment. Never view the sun directly without a proper solar filter.

Peoria Astronomical Society

Program Schedule 2019– 2020 (final)

October 2, 2019 Recapping the July 2, 2019 Total Eclipse in Argentina
Sheldon Schafer, Renae Kerrigan, James Dire

November 6, 2019 Variable Stars, their value to science and how to get started observing
Stella Kafka, PhD
Director, American Association of Variable Star Observers (AAVSO)

December 4, 2019 Observing with the Twin City Amateur Astronomers:
The technology of the 3 TCAA observatories – Sugar Grove, Prairie Sky, and Waynesville
Carl Wenning and Tim Stone

They will encourage attendance by their members to meet and mingle with PAS members, and I will take their members to Northmoor Observatory to see the instrument and hear the history of the observatory.

January 1, 2020 No Meeting this month

February 5, 2020 Getting started with CCD & CMOS Cameras (tent. or, Part 1 from his 2 part program this past year)
James Dire PhD. – <http://astrojim.net/>

March 4, 2020 Lunar and Planetary Institute (exact title TBD)
Dr. Allan H. Treiman, Associate Director of Science
treiman@lpi.usra.edu Phone: 281-486-2117

Dr. Allan Treiman studies planetary materials, particularly Moon rocks and martian meteorites. From these rocks, he teases out the early histories of the terrestrial planets (including large asteroids), emphasizing their volatiles — water, halogens, carbon, etc. His background is in chemistry, and he approaches planetary sciences from both geological and thermochemical perspectives. Allan's current work emphasizes: Mars mineralogy (as a co-I with the CheMin instrument on the MSL rover), volatiles in the lunar crust, the origins of martian magmas, and serpentinization in relation to astrobiology. Earlier work includes diverse topics like: groundwater in Mars, as revealed by clay and carbonate minerals in martian meteorites; crust-atmosphere interactions on Venus; metamorphism in large water-rich asteroids; and water-deposited minerals on the asteroid Vesta. This research core has spun off work in other fields of planetary science. Work on the martian meteorite ALH 84001 led to studies of terrestrial analogs, the AMASE expeditions to Spitzbergen Island, and astrobiology. Work on water in martian meteorites led to investigations of possible surface manifestations of Mars water, the martian gullies.

Allan Treiman is active in science education. He has worked in many teacher-training field experiences on volcanology (central Oregon, Yellowstone, Cascade Mtns.), extreme environments (Owens Valley, CA; Yellowstone), and general geology (northern Arizona & New Mexico).

April 1, 2020 New Horizons and Beyond (tentative title)
Dr. Harold Weaver, New Horizons Project Scientist
Johns Hopkins Applied Physics Lab – Space Exploration Sector

May 6, 2020 The All New Astro-Jeopardy
Brian Bill

Suggested topics for future: Amateur Radio Astronomy – Tutorials from YouTube
IOTA (Occultation Timing Asscn.)
ALPO (Asscn. Lunar & Planetary Observers)

I invite further additions to this list. Please e-mail me directly

Incllement weather notice: Monitor email (e-group), local radio stations or PAS Facebook Page if a program, board meeting, viewing, or star party may be canceled due to weather. If we determine a risk in the weather, the Society will cancel the event. If we host an event and you feel the weather or road conditions are questionable, please take the safest actions and do not attend the event.

Location for Board Meetings on the third Wednesday of every month at 7:30 PM

Proctor Place, Third Floor Conference Room
2724 W Reservoir Blvd, Peoria, IL 61615

Board Meeting Minutes

Peoria Astronomical Society May 2019 Minutes

Peoria Astronomical Society May 2019 Minutes

Meeting called to order at 7:35 pm, Proctor Place third floor conference room, May 15, 2019

Attendees: Jesse Hoover, Dan Son, Bill Cole, Phil Burroughs, Brian Hakes, Dave Monroe

Minutes: (Phil Burroughs) The minutes of the April Board meeting were approved as corrected.

Treasurer's Report: (Brian Hakes) – Receipts for April were \$ 460.00 and disbursements were \$ 178.05.

Checking balance at the end of April 2019 was \$ 6,279.94. The savings account balance at the end of April was 13,579.97. The Treasurer's Report was approved. Brian filed Form 990-N with the IRS. Brian made the motion to have the adapter plate made for the ICC Scope for \$ 400 Dave seconded the motion and the motion passed.

Jubilee: (Bob Pauer) – Bob, Brian, and Jesse smoothed the gravel driveway. New hinges are needed for the outhouse door. It was thought, the Prairie Dogs could fix it.

Northmoor - This Saturday, May 20, Northmoor Observatory will open. Dan showed the answers to the treasure hunt questions.

Inventory (Bob Pauer) – None

Nominating: (Tatiana Johnson) – Board members need to contact Tatiana about their status for next year.

Legal Agent: (Dave Monroe) – None

Membership/Alcor: (Eric Clifton/Scott Swords) – We have one new member, Robyn MacDonald.

Starlite (Jesse Hoover) – Deadline for Starlite is tonight but Jesse will still continue taking articles until he sends it out.

Program: (Sheldon Schafer). – Sheldon has a tentative schedule for next year.

Peoria Academy of Science: (Bill Cole) – Peoria Academy of Science doesn't meet until October.

Light Control: (Jesse Hoover) – Jesse attended a webcast by the IDA on "Recommendations for Stadium Lighting".

Observing Report: (Gary Bussman) – Gary has e-mailed observing report.

Website: (Stan Pope) – Dan will talk to Stan Pope about website.

Old Business: - Dan is going to contact Bernardi's North about reserving a room for PAS Banquet.

New Business: - Canton Star Party is scheduled for Aug. 31 with a rain date of Sept. 21. Since several board members cannot make the June Board Meeting and no business is pending, the June Board meeting is canceled.

Jesse bought a 50" monitor and raspberry pie minicomputer for showing pictures at Northmoor Observatory. Brian mentioned using memorial funds for offsetting the expenses of this setup. Jesse will bring a list of itemized expenses to the board meeting for this setup. The money can then be voted on by the board. Dan is going to look into mounting the monitor.

Meeting adjourned at 8:40 pm.

Minutes taken by Phil Burroughs, PAS Secretary

Peoria Astronomical Society June 2019 Minutes

(Canceled, The Quorum was not established.)

Peoria Astronomical Society July 2019 Minutes

Meeting called to order at 7:35 pm, Proctor Place third floor conference room, July 17, 2019

Attendees: Jesse Hoover, Dan Son, Bill Cole, Phil Burroughs

Minutes: (Phil Burroughs) The minutes of the May Board Meeting were approved. There was no June Board Meeting.

Treasurer's Report: (Brian Hakes) – Receipts for May and June were \$ 200.00 and disbursements were \$ 2177.44. Checking balance at the end of June 2019 was \$ 4,302.47. The savings account balance at the end of June was \$ 13,581.95. The Treasurer's Report was approved.

Jubilee: (Bob Pauer) – The ICC scope has been mounted at Jubilee.

Northmoor - The door light is not shutting off during the daytime because of a bad photocell. The lock in the door handle is not working properly. There have not been many viewing nights because of weather.

Nominating: (Tatiana Johnson) – None

Legal Agent: (Dave Monroe) – None

Membership/Alcor: (Eric Clifton/Scott Swords) – None

Starlite (Jesse Hoover) –Articles for the next Starlite are due next month. Jesse will check to see if website has latest Starlite.

Program: (Sheldon Schafer). – Sheldon has made the sixth draft for programs for next year.

Peoria Academy of Science: (Bill Cole) – None

Light Control: (Jesse Hoover) – IDA has guidelines and recommendations for lighting on their website.

Website: (Stan Pope) – Payment for website is due soon. Jesse will take on paying.

Old Business: - Dan has reserved Bernardi's North for PAS Banquet on Sept. 14. He will check with them on

what items are available to us from the menu. Jesse has receipts for Northmoor TV and mount.

New Business: - Canton Star Party is scheduled for Aug. 31 with a rain date of Sept. 21. Jesse can put this information on website.

Meeting adjourned at 8:20 pm.

Minutes taken by Phil Burroughs, PAS Secretary

2019 Northmoor Observing Schedule

Sep 14 th	Sheldon Schafer Jesse Hoover Brian Austin	Sep 21 st	Phil Burroughs Tatiana Johnson Jon Crow Larry Reeves
Sep 28 th	Terry Beachler Brian Bill Dave Grebner	Oct 5 th	Dan Son Brian Austin Brandt Bechtold
Oct 12 th	Brian Hakes Rodney Nordstrom Larry Reeves	Oct 19 th	Josh Wrigley Steve Wrigley Jon Wrigley
		Host is 1 st name for the scheduled date. If you cannot be present, it is your responsibility to obtain a substitute and notify the host.	

2019 Jubilee Maintenance Schedule

April 27 Gary Bussman Dan Son	May 4 Eric Clifton Bob Pauer	May 11 Jesse Hoover Brian Hakes	May 18 James Dire Dave Grebner
May 25 Brian Bill Bob Pauer	June 1 Jon Crow Brian Hakes	June 8 Brandt Bechtold Dan Son	June 15 Eric Clifton Bob Pauer
June 22 Jesse Hoover Brian Hakes	June 29 Steve Russell Dave Grebner	July 6 Jon Crow Brian Bill	July 13 James Dire Brandt Bechtold
Aug 17 Gary Bussman Eric Clifton	Aug 24 Jesse Hoover Jon Crow	Aug 31 Larry Russell Dan Son	Sept 7 Steve Russell Brian Bill
Sept 14 Brandt Bechtold Larry Russell	Sept 21 Jesse Hoover Dave Grebner	Sept 28 Gary Bussman Eric Clifton	Oct 5 Larry Russell James Dire

Responsibilities: Check each building to ensure security of equipment. Sweep floors, mow lawn and trim around buildings, blow or sweep off grass clippings from walkways. Mowing once a week will help prevent clumping and the need to sweep up clumps. Bring gas to top off mower tank. Currently there is no line trimmer at Jubilee. Since only two people are scheduled each week, it is **imperative** they insure that someone goes to Jubilee and perform scheduled tasks. Please notify me of any schedule conflicts or problems with the equipment.

Bob Pauer: 879-2438