



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

SPRING, 2021

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Officers:

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

Directors:

Parliamentarian: Dave Monroe, dave.monroe@comcast.net
Nominating Chairman: Tatiana Johnson, 2gsheps@gmail.com
Legal Agent: Dave Monroe, dave.monroe@comcast.net
Northmoor Chairman: Dan Son, sonshine1992@gmail.com
Jubilee Chairman: Robert Pauer, sbpauer@winco.net

PEORIA ASTRONOMICAL SOCIETY IS NOW ON FACEBOOK:
www.facebook.com/PeoriaAstronomicalSociety

Update your address, phone or email changes

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 or Dan Son at sonshine1992@gmail.com 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.

NEW MEMBERS:

The Peoria Astronomical Society welcomes new members:
Liam Kallister of Peoria and Neal Rudy also of Peoria

2021 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/met2021.html> The next Meteor shower will be the Lyrid's on April 21-22. It will be 1 day past 1st quarter Moon and should not be a problem for the predawn sky's. Eta Aquarid on May 4-5 in the predawn sky's.

Scott

Comet finder: Dan Son

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

Great web site that has finder charts for visible comets.

25 years ago

Astronomical 'Equipment'

L	J	W	S	Q	X	D	O	B	S	O	N	I	A	N
R	O	T	C	E	L	F	E	R	E	D	D	A	L	U
A	A	S	R	W	A	D	A	R	L	E	T	R	X	E
Q	F	Y	H	A	G	L	G	V	Y	W	O	H	B	L
V	P	E	T	T	U	M	U	R	Z	C	X	U	I	C
U	T	J	F	C	H	P	A	M	R	A	T	S	E	R
X	H	A	O	H	T	D	F	R	I	P	S	F	D	I
Z	G	N	L	O	N	G	J	O	H	N	S	I	C	C
O	I	I	D	O	P	I	R	T	A	R	U	L	O	A
B	L	T	C	G	P	E	N	C	I	L	J	M	V	F
X	H	E	O	Q	V	A	K	A	C	S	P	L	I	B
R	S	R	F	T	T	S	H	R	H	U	N	L	D	J
B	A	N	F	X	D	C	K	F	T	O	T	A	S	N
L	L	C	E	Y	E	P	I	E	C	E	A	M	R	I
N	F	S	E	L	A	L	R	R	R	E	W	O	P	T

Can you find the 30 different astronomical equipment words. Words may be found in any direction. Answers found further down in this issue

President's Message

You may have heard or learned of a proposed Amphitheater for Donovan Park. This is not a Peoria Park District (PPD) project, but it is a private development on Park District property. The funding is from gifts by generous donors for the construction of the amphitheater. The role of the park district is that they have been asked to lease a tract of park land for the development of the amphitheater. The proposed project is to be located immediately east of the observatory. This endeavor is in the early stages with more than half of the money needed, pledged.



The artist illustration is of the amphitheater and parking lot. Unity Point (Proctor) Hospital in the lower left hand corner. Knoxville Ave and the entrance to Donovan Park border the project. The Rock Island trail is diagonally crossing Knoxville in the upper right hand corner. While there is sufficient detail illustrating the chillers at the hospital and the small building east of Cyds parking lot as well as the three ponds but oddly enough the observatory with the attached warm up room is omitted from the illustration. Because the PPD is entrusted with the stewardship of public property they must oversee a rigorous review at various stages and submit

the findings to the PPD board of directors for discussion and eventually a vote regarding the authorization of leasing park district property.

At the moment this process is in its infancy. Eric Clifton and I have meet with the Emily Cahill, the PPD administrator and her staff, to share the PAS concern of how the amphitheater would impact observing at Northmoor and the public viewing program.

Other than incremental light pollution the other concern is with the heat that would be generated by the parking lot, vehicles and the amphitheater itself. This would compromise viewing to the East and already with limited or poor seeing to the north, viewing would then be restricted from the west thru to the south.

A major reason why the observatory was constructed on a golf course nearly seven decades ago is because of the effect that grass would have by mitigating the heat radiated by the earth and assuring steady night viewing.

We think that it is commendable that the PPD is collaborating with wealthy benefactors and the private sector to create a new asset for the community. We also believe the observatory and the longest actively running public observing program in Illinois too is a community asset. The PAS board of directors is not opposed to an amphitheater, its primary concern is having it located so close to the observatory. This is the position of the PAS board. Should you as a member of the society, be asked by others what are your thoughts regarding the amphitheater and the observatory, you can iterate the stated position of PAS Board.

Brian Hakes

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

If you have a photo that you would like to submit for the Starlite, please send these to Jesse Hoover hooveje@gmail.com along with a little write-up about the photo. Photos can be from star parties, club events, personal view, etc. Astrophotography is encouraged. Also, if you have educational content, tips, techniques, lessons learned or how-to articles with photos, we encourage that material for the Starlite. We can also put these on our Facebook page if you so desire.

<https://www.facebook.com/PeoriaAstronomicalSociety>

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.

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>

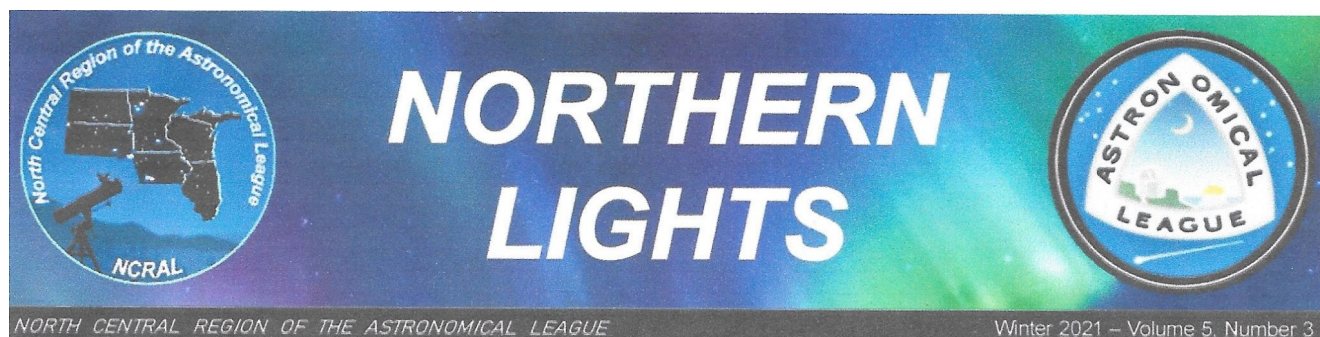
NCRAL Newsletter:

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 Winter 2021 issue is now available to read on their website can be found here:

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

You can access the current issue and all other back issues through this link.



Lots of good news, announcements, and articles in this 24-page Winter issue, so don't miss it! I like the article on their Autumn Mini Messier Marathon with certificate and pin plus a good example of recording your messier finds!

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>

Program Schedule 2020-2021

Peoria Astronomical Society Public Programs

All programs are Free and open to the Public. Time: 7:30 p.m.

All programs are held in the Dome at the Peoria Riverfront Museum

Free parking in the museum's parking deck

Actual schedule will depend on reopening of Illinois and of the museum

March 3, 2021 The Glasford Meteor Crater via Zoom Charles Monson, Illinois State Geologic Survey, University of Illinois cmonson@illinois.edu

April 7, 2021 Big Astronomy - The Vera Rubin Observatory with introduction by Renae Kerrigan via Zoom <https://fb.watch/1mQzbiQSWF/>
The new planetarium upgrade – coming soon - Renae Kerrigan
Plus - story sharing session

(Have one photo on your computer desktop to share which has a short astronomical story to tell about it (the photo may or may not be of an astronomical object, and in fact, the astronomical connection may not be clear without your story.)

May 5, 2021 The New Horizons Mission to Pluto and the Kuiper Belt – via Zoom Exploring Worlds in the Distant Reaches of our Solar System
Dr. Kelsi N. Singer Senior Research Scientist, SwRI Boulder, CO
Deputy Project Scientist and Co-I on New Horizons Mission
In July of 2015 the New Horizons spacecraft flew through the Pluto system, completing humanity's reconnaissance of the classical planets. Pluto turned out to be a world of remarkable geologic diversity, and its surfaces display a range of ages, suggesting geologic activity of various forms has persisted for much of Pluto's history. Images looking back at the sun through Pluto's thin atmosphere led to the discovery of numerous haze layers, and it turns out Pluto has a blue sky. On January 1st of 2019 New Horizons encountered its second target, a smaller Kuiper Belt Object called Arrokoth. Arrokoth is approximately 35 km across and is 43 times farther from the sun than the Earth is, making it the farthest planetary body ever explored by a spacecraft. Arrokoth is an ancient body that is giving us insights into the building blocks of the planets.

Incident 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

Meeting called to order at 7:34 pm, Zoom Meeting, November 18, 2020

Attendees: Dan Son, Phil Burroughs, Brian Hakes, Dave Monroe, Bill Cole, Sheldon Schafer, Jesse Hoover, Eric Clifton, Bob Pauer ; guests: Rodney Nordstrom, Judd Isbell

Minutes: (Phil Burroughs) The minutes of the August Board Meeting were approved on a motion made by Brian and seconded by Dan.

Treasurer's Report: (Dan Son) – Receipts for the month of October were \$ 0. Disbursements were Ameren \$ 738.34, Callender & co. for insurance \$ 53.00. for a total of \$ 128.99. Checking account balance at the end of Oct was \$ 3,506.47. The savings account generated \$.11 interest The October Treasurer's report was approved. Chuck Lamb a past PAS President has died. Brian made a motion to donate \$ 100.00 to St. Marks School in honor of Chuck. Dan seconded the motion and it passed. Dan reported 3 previous members have paid their dues since June. It was decided that if someone pays their dues after Sept. 1, it would apply to next year's dues.

Jubilee: (Bob Pauer) – There was a discussion of possible accessories for the 24" scope. Eric mentioned the scope had drive problems that need to be remedied before buying accessories. It was decided to contact Bob Bloompot, ICC Instructor about fixing these drive problems.

Northmoor: (Dan Son) – Eric said he had been contacted about a proposed amphitheater in the SE corner of Donovan. It is only being looked at now. This amphitheater would be bad for viewing at Northmoor. Eric will contact Matt Freeman of the Park District and express our concerns and to keep us updated on the status of this project. Dan replaced the door handle. The new handle came from Peoria Lock and cost about \$ 90. He also winterized Northmoor.

Nominating: (Tatiana Johnson) – None

Legal Agent: (Dave Monroe) – None

Membership/Alcor: (Eric Clifton/Scott Swords) – One new member in October and one new member in November.

Starlite (Jesse Hoover) – Jesse is looking for a replacement for his job as editor and will train them. Brian will send out an announcement.

Program: (Sheldon Schafer). – Sheldon has sent out the latest program schedule. December will be a Zoom Meeting. There will be no meeting in January.

Peoria Academy of Science: (Bill Cole) – None

Light Control: (Jesse Hoover) – IDA has a meeting tonight.

Observing Report: (Gary Bussman) – None

Website: (Stan Pope) – Dan would like to have information on the Website that doesn't need updating. Eric would like to have a place to store documents and be able to retrieve them. Jesse is going to see how IDA stores their documents.

Old Business: Yahoo is closing E-groups in December 15. Everyone at PAS is now on Groups IO so it won't affect club.

New Business: Brian made the motion and Sheldon seconded it to have no December Board Meeting. The motion passed.

Meeting adjourned at 9:00 pm.

Minutes taken by Phil Burroughs, PAS Secretary

Meeting called to order at 7:35 pm, Zoom Meeting, January 20, 2021

Attendees: Dan Son, Phil Burroughs, Brian Hakes, Dave Monroe, Bill Cole, Sheldon Schafer, Jesse Hoover, Eric Clifton, Bob Pauer ; guests: Rodney Nordstrom, Judd Isbell

Minutes: (Phil Burroughs) The minutes of the November Board Meeting were approved. There was no December 2020 Board Meeting.

Treasurer's Report: (Dan Son) – There was no written copy of the Treasurer's Report. The Treasurer's report was given verbally by Dan Son and approved.

Jubilee: (Bob Pauer) – The Jubilee lease will be up in the future and will need to be renewed. Eric recommended waiting 6 months and then discussing it. Bob introduced a survey of Jubilee improvements. He will send out the survey to get members

feedback and suggestions for additional improvements. Dan recommended another survey on getting members to visit Jubilee.

Northmoor: (Dan Son) – Dan will send out E-mail for hosts asking for preferred dates. Host schedule will go out in February. The decision to open because of the pandemic will probably be made in April or May. Eric sent out an E-mail with more plans on the proposed amphitheater. Brian, Eric and Sheldon will be meeting with the Park District tomorrow to discuss how the proposed amphitheater will affect Northmoor Observatory.

Nominating: (Tatiana Johnson) – None

Legal Agent: (Dave Monroe) – Dave sent in the annual report to the Illinois Secretary of State. It costs \$ 11.00.

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

Starlite (Jesse Hoover) – The club is still looking for an editor. Dan said he could assist Jesse with writing the Starlite. There was discussion on the club possibly furnishing the future editor with a computer.

Program: (Sheldon Schafer). – Sheldon has sent out the latest program schedule February to May with many meetings expected to be Zoom meetings..

Peoria Academy of Science: (Bill Cole) – Monthly meeting tomorrow night on Zoom and there will be an update on proposed Northmoor amphitheater.

Light Control: (Jesse Hoover) – IDA has a meeting next Thursday. Jesse will submit an annual report to them. Eric and Jesse to measure light pollution at Northmoor Observatory.

Observing Report: (Gary Bussman) – Dan recommended Observing Report from agenda and all agreed.

Website: (Stan Pope) Dan will contact Stan about updates to website. Jesse will show Dan how to update website.

Old Business: None

New Business: .A memorial was made for \$ 50 to Center for Prevention of Abuse for Stan Pope's wife. Perry White has died and left telescope and other equipment to club. Greg Neaville's wife passed away 2 weeks ago.

Meeting adjourned at 9:12 pm.

Attached is an image of galaxy IC342. The image was taken with a William Optics 132mm f/7 Apo (with a Televue 0.8x focal reducer/field flattener yielding f/5.6) using an SBIG ST-2000XCM CCD camera. The exposure was 6 hours collected with 10 minutes subframes on both November 6 and December 4, 2020 from the Jubilee Observatory site. IC342 is a large, but extremely low surface brightness, galaxy in the constellation Camelopardalis. It has an integrated magnitude of 9.67 and a diameter of 19.1 arc minutes. The galaxy was not seen by Messier as no telescope of his era could capture its faint light. Neither William Herschel or his son John saw it either. It was discovered by William Frederick Denning, a British amateur astronomer, in 1892. The galaxy can be spied visually with modern amateur telescopes and large binoculars. Image taken by Dr James Dire



Comet C/2013 R1 (Lovejoy)

I admire the patience of those who are successful at astroimaging. There is certainly more to it than attaching a camera to a telescope. When I saw how many things had to go right, I took the easy route and subscribed to a remote telescope rental service. I use iTelescope whenever I have an interesting project. It is economical for small projects and, best of all, they set up the equipment and keep it running.

I have attempted many comet images with iTelescope. Most of them didn't work out, but C/2013 R1 (Lovejoy) produced a beautiful image. I caught it at the beginning of the pre-dawn twilight. Comet Lovejoy was in Hercules, on the fringe of the Milky Way. The comet is impressive, but I am equally awed by the vast number of background stars.



Image taken by John Manney

Northmoor Opening update -

We will not be opening in May. Host's and helpers have asked to wait till they are vaccinated. If you have questions please email or call me. I do encourage anyone with a key or helper to ask a keyholder to go out and use the Scope. I will have groups coming out if I can be available.. I will be making a schedule for keyholders and helpers and email you ASAP.

Dan Son

FROM STARLITES PAST

By Dan Son

50 Years Ago, Spring Starlite, 1971 How many have seen this logo of the Peoria Astronomical Society! It was being used from Spring of 1968 to Fall of 1992.



25 Years Ago, Spring Starlite, 1991 Did you find 30?

Astronomical Equipment Answers:

Aluminum, Binoculars, Chair, Circle, Coffee, Computer, Dewcap, Dobsonian, Eyepiece, Film, Filter, Flashlight, Ladder, Lens, Longjohns, Pencil, Power, Pyrex, Reflector, Refractor, Retina, Secondary, Sextant, Snacks, Starmap, Telrad, Transit, Tripod, Tube, Watch