



The Night Sky

The Newsletter of
The Astronomy Club of Akron
www.acaoh.org

Volume 38 Number 8

August 2016

SUMMER BREAK! NO MEETING AT KIWANIS THIS MONTH!

The Presidents Column

By Cathy Loboda

In the May issue of ACA's Night Sky, I wrote of the International Dark-Sky Association's commitment to protect dark skies over Grand Canyon National Park and efforts by the Park Service to retrofit over 5,000 light fixtures within the park to control light pollution. The article prompted ACA member Mark Kochheiser to share this link with members via email: <http://www.cnn.com/2016/06/21/health/led-streetlightsama/>

The CNN link offered an article by Richard G. Stevens, a professor in the School of Medicine at the University of Connecticut. The article noted the American Medical Association [AMA] adopted an official policy during its annual meeting in June recommending municipalities replace outdated street lighting with cooler, dimmer lights designed to minimize light pollution.

In summary, the AMA has made three recommendations in its new policy statement:

First, the AMA supports a "proper conversion to community based Light Emitting Diode (LED) lighting, which reduces energy consumption and decreases the use of fossil fuels."

Second, the AMA "encourage[s] minimizing and controlling blue-rich environmental lighting by using the lowest emission of blue light possible to reduce glare."

Third, the AMA "encourage[s] the use of 3000K or lower lighting for outdoor installations such as roadways. All LED lighting should be properly shielded to minimize glare and detrimental human and environmental effects, and consideration should be given to utilize the ability of LED lighting to be dimmed for off-peak time periods."

Essentially, the AMA is concerned with the disruption in our biological rhythmic cycles and its affects on our health. LED technology can be designed to minimize such effects and still maintain energy savings for municipalities lighting our streets. The issue of how to light the night safely and economically is complex. The details presented in the report are interesting and worth reading. If you haven't already, visit the site through the link provided. Albeit for various reasons, we are currently finding a growing number of organizations voicing the need to increase and protect dark skies.



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July Treasurer's Report

By Nick Mihiylov

7/1/2016 Through 7/31/2016

Checking Beginning Balance	\$1,760.50
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Income

Bank Fee Rebate	9.99
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Membership Dues	40.00
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Membership Dues and Magazine Subscriptions	64.00
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PayPal Membership Dues	30.18
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Total Income	\$144.17
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Expenses

Observatory Expenses	-1,261.85
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MetaSentry	-57.81
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Total Expenses	-1,319.66
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Income Less Expenses	-\$1,175.49
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Checking Ending Balance	\$585.01
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Savings Beginning Balance	\$2,555.93
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Earned Interest	0.04
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Bank Fee Rebate	9.99
-----------------	------

Savings Ending Balance	\$2,565.96
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Petty Cash Beginning Balance	\$50.00
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	0.00
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Petty Cash Ending Balance	\$50.00
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Petty Cash	50.00
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Savings	2,565.96
---------	----------

Checking	585.01
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Grand Total	\$3,200.97
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Article by Nick Mihiylov
ACA Treasurer.

SWAP & SHOP



FOR SALE:

Orion Sirius 40mm Plossl

Asking: \$25

Contact: Glenn Cameron

Phone: 330-737-1472

Email: glenn@cameronclan.org

FOR SALE:



Televue Radian 12 mm Eyepiece

- Excellent condition.

Asking: \$180 (cash)

Contact: Fred Fry

Email:

riverfry@gmail.com

FOR SALE:



Televue Radian 18 mm Eyepiece

- Excellent condition.

Asking: \$180 (cash)

Contact: Fred Fry

Email:

riverfry@gmail.com

FOR SALE:

Celestron CPC Deluxe 800 HD Telescope with tripod.

Accessories:

- Celestron 1.25" eyepiece and filter kit.
- Tele Vue nebula filter.
- Celestron UHC/LPR filter.
- Celestron 15mm 1.25" 82 degree wide field eyepiece.
- Stellarvue 1.25" Dielectric Diagonal.
- Stellarvue 1.25" erecting prism.
- Celestron power tank and dew shield.
- Astrozap sun filter.
- Celestron AC adaptor.
- JMI custom hard shell case for telescope.

All 8 months old, brand new condition.

Asking: \$2200

Contact: Jim Hall

Phone: 330-268-8695

FOR SALE:



Pentax XW 20mm Eyepiece

- Excellent condition.
- Small mark on 1.25" barrel.
- Always used in a compression clamp.

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Contact: Fred Fry

Email: riverfry@gmail.com

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Celestron NexStar 8i computerized to go 8" F/10 Schmidt-Cassegrain

Focal length 2032 mm with 406x highest useful power.

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- 2X Barlow lense.
- Seven filters.
- A/C adaptor.
- Night vision flash.
- Celestron star pointer.

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Asking: Best Offer

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Email: nb@tribco.com

Phone: 216-486-2000 weekdays and

440-585-8687 evenings and weekends.

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editor:

speedymissy@yahoo.com

The Presidents Column Con't

While addressing the issue of dark skies, I would like to briefly share a recent experience I had while vacationing with my family in June. My family was fortunate to spend time together in the beautiful Upper Peninsula of Michigan. The home we rented was located on the north shore of Lake Michigan and provided a private beach on the lake. Looking south toward the Lower Peninsula, we could barely see land.

Before our trip, I read up on nearby sights to see and things to do during our stay. Mackinaw City on the northern shore of the Lower Peninsula offered much to do; however, the city is laden with hotels and commercialized attractions for vacationers. This did not appeal to me in the least, so I continued reading. I came upon a surprising attraction—a park located west of the city. The Headlands is a 600 acre park with 2 miles of shoreline on Lake Michigan. It boasts old growth forests and five miles of trails for visitors to enjoy. As I read, I was amazed by the park's finest feature ...it is said to have one of the darkest night skies in the world and is known to lure astronomy buffs. I was skeptical. Having one of the darkest night skies seemed impossible due to the park's close proximity to Mackinaw City. Convinced it was simply a ploy to attract vacationers in the city, I dismissed the park without researching further.

As our vacation week neared its end and some family members began their journeys home, I experienced my latest moment of awe. It was nearly 1:00 a.m. and all who remained were in bed. I took the opportunity to turn off all the lights in the house and sneak out to the deck for a bit of solitude. I looked to the sky, and immediately my breath was taken away. The night sky was amazing! The Milky Way was clearly visible and the stars were bright and abundant. It immediately brought back memories of stargazing on Hawaii's Mauna Kea. I immediately went back into the house and woke up the family. Yes, they grumbled.... until they stood in the darkness with me, amazed at the sight. It was a moment to cherish.

The following morning, I opened a map to see what was located on the Lower Peninsula directly across from our rental home on the lake. The night before as I faced the lake from our deck and looked toward the Straits of Mackinac, I detected little in the way of light pollution. Surprisingly, I discovered the Headlands Park was to our south. I was so disappointed in myself. I should have never dismissed the idea of this park so easily. Having done so, I threw away a wonderful opportunity for my entire family.

Our vacation is over, my research is complete, and I can happily report: ACA members living in the Akron area are only a seven hour drive from Headlands International Dark Sky Park. Yes, the park I thought a ploy is one of the few international sites designated by the International Dark-Sky Association. I will save details of how difficult this designation was to achieve for another time; however, I will highly recommend the park and the Upper Peninsula of Michigan for your next vacation destination. I know my family will be returning soon.

*Article By Cathy Loboda
ACA President*

Observatory Report



Lew Snodgrass sets up his Celestron CPC-11 for impromptu star party on August 8th. Lew was showing stargazers Messier Objects in the constellation Sagittarius. Also in frame is member Terry Taylor, searching the skies for low pass of ISS.

On Monday August 8th the ACA held an impromptu star party out at Portage Lakes State Park from 8:45 until 11:30. The original time was scheduled to be from 8:45 to 10:30 to accommodate everyone's work schedule, but a nice crowd of some 15 people decide to venture out for some stargazing and stayed later than expected. The seeing could have been better, there was a bit of moisture in the atmosphere creating a soupy look but that didn't stop us! Of course our very first object was the moon, a perfect waxing crescent was hanging beautifully in the sky and observers were treated to views of numerous craters and the shadows that they cast upon the lunar surface. Next up was Saturn the crown jewel of the solar system! Well according to most people. Since it was still early with quite a bit of sunlight out only one lonely moon was visible, Ron went back to Saturn later to spot more of the moons. The planet was gorgeous as always with people saying that all to familiar phrase when a newbie sees this alien world for the first time, "oh my God." We never tire of hearing that one. Ron tried to swing back to the moon for one last look before it became too low for the telescope but for some really odd reason the telescope lost

track of where it was and she seemingly tried to flop upside-down to locate the moon!!! Well Ron quickly shut down the telescope and in the dark, with Greg Crenshaw helping with a red light, he tried to see if a cable came loose or if anything fell off of the scope. They both couldn't find anything so Ron fired her back up and did a quick one star alignment...with everything in working order once again we were off to continue our exploration of the universe. At about 9:38 an iridium flare was expected in our northeast about 58 degrees high and right on time we all spotted the satellite which brightened to about negative two. Everyone was highly impressed with the event. Later we were treated to another satellite pass as well as a visit from the International Space Station to our north. Folks were shown M13, M57, M27, M92, other star clusters, Albireo, and the Swan nebula. Although the Perseids are occurring right now sadly only two meteors were spotted with everyone having their eyes glued to the sky. At least seven members were in attendance, Lew even brought his equipment to set up and show off the universe. Besides the unfavorable seeing conditions the evening was very enjoyable and the temperature was perfect for observing...everyone shared stories, laughs, and good times under the stars.

Astronomy Picture of the Month

By Marissa Fanady

Heads up, meteor alert! This month's featured astronomy object is the annual Perseid meteor shower. What exactly is a meteor shower? Well, this phenomenon occurs when a concentration of dust and small rocks encounters the earth's atmosphere. Once they hit our atmosphere they begin to burn up from atmospheric friction, this causes the debris to glow and completely burn up. The light phenomenon that we see is called a meteor or a shooting star. Earth is constantly being hit by these tiny dust grains, some are so tiny that atmospheric friction never occurs and they survive the fall to the ground. These are now called micro meteorites, but before you try to go looking for these keep in mind that some are smaller than the width of a human hair! Now, what makes this a better time to see more meteors and what makes this occur every year? The answer is a comets trail. Our



An outburst of Perseid meteors lights up the sky in August 2009 in this time-lapse image. Stargazers expect a similar outburst during next week's Perseid meteor shower, which will be visible overnight on Aug. 11 and 12. Image Credits: NASA/JPL.

planet is passing through an ancient comets path, remember tons of dust and debris is flying off of a comet when it's making its way around the sun and being heated up by our star. This causes the beautiful tails that we are sometimes lucky to view and enjoy. That dust trail that fell off of the comet still travels the same path as its parent body; it's this field of ice and dust that gives us a better light show. The comet that left this trail is called Swift-Tuttle and it's orbital period is every 133 years. Don't panic, we are in no danger of being struck by this comet. Most often we actually make contact with just the outer edge of the trail, but sometimes Jupiter's massive gravity influences the trail and tosses more debris our way. This year scientists are predicting such an event causing an outburst that may produce 200 meteors per hour under the right conditions. How do you view this event? The best bet is to drive to a dark location away from light pollution, the darker the better. The only equipment needed is a blanket to lay on and eyes, no telescope or binoculars are required because they can occur anywhere in the sky. They seem to radiate from the constellation Perseus, giving them their name of the Perseids. The best night to catch them is on the night of August 11-12 between midnight and 4am, this is their peak night. After this night they will become less frequent as the planet leaves the debris field. Another very cool fact is that the dust you'll see flew off of the comet hundreds if not thousands of years ago and have traveled billions of miles. Oh and lastly, meteor showers do not produce meteorites so don't worry about lying there and being concerned about being hit by a space rock...just lie down and enjoy one of mother nature's wonders, if you're lucky enough to have clear skies!

Information credited: <http://www.nasa.gov/topics/solarsystem/features/watchtheskies/perseid-meteor-shower-aug11-12.html>

*Article By Marissa Fanady
Publications Secretary*

ACA Board Meeting Minutes July 10, 2016

Attendees: Gary, Ron, Freddie, Ann, Lew, Gregg, Nick, Cathy, Marissa.

Social events: ACA summer picnic at Portage Lakes shelter "Big Oaks" 4pm.

Members Trips: Discussion, Allegheny Observatory, Hoover Price planetarium, reorganize ACA dinner - Golden Corral or The Galaxy in Wadsworth.

Expenditures: Nick (Treasurer) we have a new checking account with no service fees. Post a budget for the observatory.

Service awards: For hours logged in service to the club including outreach.

Outreach: Lew will coordinate with the Planetarium Director at the new Firestone high. We could be on hand for presentations, public open house and as speakers. Also, distribute flyers to libraries and schools.

Ron mentioned to update our members list. New flyers (with membership applications on the back) and star party scheduled to be made available at the observatory.

Newsletter: Solicit contributors, change to Bi-monthly, and appoint a club photographer.

New Business: New meeting time discussed, weekdays at apx. 4:30pm, Saturdays in the morning apx. 8am. –All tentative.

Appoint a spokesperson for upcoming interview. None appointed or volunteered at this time.

August Astronomical Events

Day Hour(UT)
2 21 NEW MOON
4 06 Venus 3° N. of Moon
4 22 Mercury 0° .6 N. of Moon Occn.
5 09 Venus 1° .1 N. of Regulus
6 04 Jupiter 0° .2 N. of Moon Occn.
10 00 Moon at apogee
10 18 FIRST QUARTER
11 22 Mars 8° S. of Moon
12 12 Saturn 4° S. of Moon
13 18 Saturn stationary
16 21 Mercury greatest elong. E. (27°)
18 09 FULL MOON Penumbral Eclipse
19 12 Neptune 1° .1 S. of Moon Occn.
20 12 Pallas at opposition
22 01 Moon at perigee
22 10 Uranus 3° N. of Moon
24 04 Mars 1° .8 N. of Antares
25 04 LAST QUARTER
25 17 Aldebaran 0° .2 S. of Moon Occn.
25 18 Mars 4° S. of Saturn
27 05 Mercury 5° S. of Venus
27 22 Venus 0° .07 N. of Jupiter
30 01 Mercury stationary

September Astronomical Events

Day Hour(UT)
1 09 NEW MOON Eclipse
2 13 Ceres stationary
2 17 Mercury 6° S. of Moon
2 17 Neptune at opposition
2 22 Jupiter 0° .4S. of Moon Occn.
3 11 Venus 1° .1S. of Moon Occn.
6 19 Moon at apogee
8 21 Saturn 4° S. of Moon
9 12 FIRST QUARTER
9 14 Mars 8° S. of Moon
13 00 Mercury in inferior conjunction
15 20 Neptune 1° .2S. of Moon Occn.
16 19 FULL MOON Penumbral Eclipse
17 23 Venus 3° N. of Spica
18 17 Moon at perigee
18 17 Uranus 3° N. of Moon
21 10 Mercury stationary
21 23 Aldebaran 0° .2S. of Moon Occn.
22 14 Equinox
23 10 LAST QUARTER
26 03 Pluto stationary
26 07 Jupiter in conjunction with Sun
28 20 Mercury greatest elong. W.(18°)
29 11 Mercury 0° .7N. of Moon Occn.

*Information Credited,
Her Majesty's Nautical Almanac Office,
United Kingdom Hydrographic Office.
US Naval Observatory.*

ACA NEWS AND NOTES

MARK YOUR CALENDARS

The ACA Annual Members' Summer Picnic and Swap & Shop is scheduled for Sunday, August 21st at 4:00 p.m. The event will be held at Big Oaks Pavilion, Portage Lakes State Park. Please RSVP the number attending and note the food item you intend to share to President Cathy Loboda at cnloboda@aol.com. ACA will provide burgers, dogs, buns, condiments, drinks, and paper products. Last year's picnic was enjoyed by all in attendance....good friends + good food = good times! Hope to see you there!

Observatory Director Ron Kalinoski will have the observatory open at 7:45 p.m. on August 27 and September 3 for our scheduled star parties, weather permitting. Check the ACA website for the updates as the date nears. Come out in support of the events and enjoy fellowship with the public and each other!

MEMBERSHIP

The ACA Board and Treasurer Nick Mihiylov wants to remind you that ACA's calendar year begins in September when our monthly meetings resume. Please turn in your membership dues by or during the September 23rd meeting to ensure ACA has the financial support needed to continue serving Akron and its neighboring communities.

MVAS HOSTS OTAA

As reported via email by Observatory Director Ron Kalinoski, members had a fabulous time at Mahoning Valley Astronomical Society's Ohio Turnpike Astronomers Association [OTAA] event held August 6th. The food was good and plentiful and Dr. John Feldmeier spoke about his research using the Hobby Eberly Telescope at McDonald Observatory. The event presented perfect night skies and the Cortese Observatory was operational. The Milky Way was easily visible and attendees were treated to amazing views of Saturn, Great Hercules Cluster, Ring Nebula and Albireo through the 12.5" Newtonian operated by none other than ACA's Ron Kalinoski.

ACA would like to thank Dave Jesse for speaking on behalf of the club at the event. Dave gave an update on ACA's outreach programs at Camp Carl, Camp Cheerful, and our star parties at the observatory.

The OTAA was organized in 1956 by four astronomy clubs located near the Ohio Turnpike. The organization's purpose is to open communication between astronomy clubs by setting dates for Ohio clubs to hold common meetings. Members of OTAA are astronomy clubs and institutions. Members of clubs belonging to OTAA are also considered members of the OTAA. The next OTAA event will be hosted by Black River Astronomical Society on September 3rd at 5 p.m. at Birmingham United Methodist Church.

MEMBER FIELD TRIP

ACA members are invited to tour the Allegheny Observatory in Pittsburgh on Friday, October 14th. Reservations for the two hour guided tour have been made with observatory staff. The tour begins at 8 p.m. with a film presentation followed by a guided walking tour of the building. The tour ends with opportunities to view the night sky's offerings through the observatory's 13" Fritz-Clark refractor telescope.....weather permitting, of course. Members on tour should remember to dress for the weather and wear comfortable shoes.

Since the tour ends at 10:00 p.m., ACA will contract transportation for members if there is interest. Research presently has transportation costs hovering in the \$40 per person vicinity. There is no cost for the observatory tour. Please email President Cathy Loboda at cnloboda@aol.com with the number in your family attending and if you will seek transportation with ACA. Tours are not recommended for children under the age of 7.

The observatory, located in Riverview Park four miles north of downtown Pittsburgh, was built in 1861. The observatory is considered one of the major astronomical research institutions of the world and is owned by the University of Pittsburgh. Primarily used as a private research lab, the observatory is only open to the public through the tour program.

A Note from the Treasurer:

It has quickly become that time of year again when membership dues are now to be collected for the period September 1, 2016 through August 31, 2017.

As you will quickly notice after reviewing this month's Treasurer's Report, our funds are depleted, mostly through Observatory necessary equipment upgrades, and the light blocking fencing project.

The Club's only means for income is derived from our annual membership dues.

We definitely need your cooperation in sending in your membership dues as quickly as possible.

There are only a handful of members that are current – so I am foregoing the “if your name isn't on this list you owe dues publication” – that may come later.

As always, your prompt response is greatly appreciated.

Nick Mihiylov

The Night Sky

Newsletter of the Astronomy Club of Akron

c/o Marissa Fanady, Editor

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Tallmadge OH, 44278

The Astronomy Club of Akron

c/o Nick Mihiylov

13495 Mogadore Avenue NW

Uniontown, Ohio 44685-9347

Yes! I want to become a member of the Astronomy Club of Akron

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Astronomy Club of Akron annual memberships renew in the month of September.

ADULT (ages 18 and older) ___\$30.00

JUNIOR (ages 12 to 17) _____\$15.00

ADDITIONAL ADULT member ___\$15.00

FAMILY MEMBERSHIP _____\$40.00

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