



The Night Sky

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

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September 2020

ZOOM VIRTUAL MONTHLY MEETINGS BEGIN OCTOBER 23

President's Column

By Gregg Crenshaw

I have been trying to get up to speed using virtual meeting applications so the ACA could start having some sort of meetings. The ACA Board tried using FreeConferenceCall.com audio only with some success. It was decided that I would contact Michele McNeal, ACA member, and Librarian at Akron Summit County Library Main Branch. I contacted her and we were able to check out Zoom on line Thursday. She has a lot of experience using Zoom. During our on line meeting she made the club an offer we certainly can't refuse. That being the library and Michele would host our monthly meetings and board meetings on their Zoom account for free as long as needed until we can meet face to face again. Club members would be able to log in through an emailed link on their computer, tablet, or smart phone for full video and audio or just audio or call in using their phone for just audio. Those of you who have used Zoom before know there also is a side chat feature where side conversations can take place or where you can get the "floor" to ask a question or make a comment. This is a great opportunity for the club to interact and get back to being a club again. I want to thank Michele and Akron Summit County Library for their kind assistance. WE WILL HAVE A TECH MEETING FRIDAY, SEPTEMBER 25 AT 8:00 TO GET EVERYONE UP TO SPEED USING ZOOM AND A SHORT BUSINESS MEETING. WATCH YOUR EMAIL FOR A LINK.

*Article by Gregg Crenshaw
ACA President*

September Astronomical Events

Day Hour (UT)

01 00 Venus 44.7° W
02 01 Full Moon 01:22
06 00 Moon-Mars 00:42
06 02 Moon Apogee 02:31
10 05 Last Quarter 05:26
10 19 Moon A Node 19:05
11 15 Neptune Opp 15:15
12 01 Moon N Dec 01:25
12 20 Venus-M44 20:10
13 23 Moon-Beehive 23:19
14 00 Moon-Venus 00:43
17 07 New Moon 07:00
18 09 Moon Perigee 09:44
22 02 Mercury-Spica 02:06
22 09 Autumn Eq 09:31
23 08 Moon D Node 08:33
23 21 First Quarter 21:55
24 15 Moon S Dec 15:11
25 02 Moon-Jupiter 02:46
25 16 Moon-Saturn 16:46

Sky Events Calendar by Fred Espenak and Sumit Dutta (NASA's GSFC)

October Astronomical Events

Day Hour (UT)

01 00 Venus 40.3° W
01 11 Mercury East 11:59
01 17 Full Moon 17:05
02 13 Venus-Reg. 13:09
02 23 Moon-Mars 23:21
03 13 Moon Apogee 13:22
07 20 Moon A Node 20:29
09 09 Moon N Dec 09:07
09 20 Last Quarter 20:39
11 08 Moon-Beehive 08:27
13 19 Mars Opp 19:10
13 19 Moon-Venus 19:57
16 15 New Moon 15:31
16 19 Moon Perigee 19:46
20 11 Moon D Node 11:53
21 01 Orionids 01:21
21 22 Moon S Dec 22:00
22 13 Moon-Jupiter 13:10
22 23 Moon-Saturn 23:49
23 09 First Quarter 09:23
25 13 Mercury Infer 13:14
29 11 Moon-Mars 11:13
30 13 Moon Apogee 13:46 o
31 09 Full Moon 09:49
31 11 Uranus Opp 11:05

Sky Events Calendar by Fred Espenak and Sumit Dutta (NASA's GSFC)

Have you ever heard meteors????

By Marnie Sanders

One gorgeous evening, back in the 70's, we were laying on our backs in a 30 acre field on Mike's grandparents' family land on Ramble Creek in Big Sandy, Tennessee, observing the Pleiades meteor showers.....life was good! We had worked all summer and completed cleaning and chinking between the logs in the 1850's cabin, let loose our 24 ducklings on the pond, and harvested peas, beans, and squash- with corn and tomatoes coming soon- in our garden. Mike had set in (& plumbed) the Sears 1-pc kitchenette combo sink with two electric burners and then hauled in the big tall brass bed we had brought from Ohio. Our two dogs approved their beds underneath and we all anticipated a good night's sleep!

"WHOA!" look at that one!" Mike pointed upward! It was a very dark sky as we were far from any other lights, and we had doused the lone porch light. We had observed several meteors in the first hour or so, and we were getting a little sleepy. Then, all the night sounds suddenly stopped. We looked at each other and then a great fireball whizzed over us and downward past our treeline! I was sure I had heard that whizzing and ran toward our cabin in a huge panic!

Mikey assured me that he heard it too, and we also then briefly imagined an alien encounter as there had been much ado over UFO's in that era, but we were both positive we had "heard" that whizzing! Yet, others claimed we were mistaken and there was no way any meteors made noise!

Well, according to a popular and reliable newsletter, EarthSky, that I regularly receive, I may have been correct! With permission of the editor, Deborah Byrd, on file with our "Night Sky" editor, Marissa Fanady, I offer the following proof:

"Is it possible to hear meteors?"

Can you hear a meteor as it streaks overhead? Some people have reported hearing meteors with a sizzling sound like

bacon frying. Scientists now say you can, and explain how it happens." (end quote).

Yes, I can report it did sound like sizzling bacon, and while I have not heard another one, the effect that it had on me was indeed long-lasting! The EarthSky article continues:

"For years, professional astronomers dismissed the notion of sounds from meteors as fiction. Why? Typically, a meteor burns up about 100 kilometers – or 60 miles – above the Earth's surface. Because sound travels so much more slowly than light does, the rumblings of a particularly large meteor shouldn't be heard for several minutes after the meteor's sighting. Something like hearing thunder after the lightning flashes have already happened. A meteor 100 kilometers high would boom about five minutes after it appears. Such an object is called a "sonic" meteor. The noise it makes is related to the sonic boom caused by a faster-than-sound aircraft. But sometimes, meteors seem to make a sound at the same time that they are being seen. These meteors would be seen and heard simultaneously. Is this possible? Yes, according to astronomers. There are what astronomers call "electrographic meteors." (end quote).

And apparently, I heard an electrographic meteor that night! And those of you who know me, you know I am NOT prone to exaggeration! The article continues:

"It wasn't until the 1970s and later that these reports began to be taken more seriously. As reported by Keay in the journal *Asteroids, Comets, Meteors*, people who claimed they could hear meteors were dismissed as crackpots. But then, hundreds of reports came from the sighting of a large meteor over New South Wales in 1978. Keay analyzed 36 of those reports. VLF waves travel at the speed of light, so observers would hear them the same time that they saw the meteors pass overhead. But those waves need something physical to act as a transducer and create the sound. Keay found that various objects such as aluminum foil, plant foliage like pine needles, thin wires, dry frizzy hair and wire-framed eyeglasses could all produce those kinds of sounds. That phenomenon is called electrophonics. According to one observer:

When I was out [viewing the Leonid meteor showers in 1999], I had my head back on the ground and heard a sizzling sound. My head was close to grass and leaves and I wear wire-frame glasses as well. The sound was definitely simultaneous with the observation of a rather large streak." (end quote).

Now, if you read the last part carefully, you will also understand why so many alien encounter movies have shown folks in tin-foil hats, such as in "Signs", by M. Night Shyamalan, one of our favorites, and a great "quarantine" movie night indeed! Continuing on with the Earthsky article:

"Keay's hypothesis was further tested during the Leonid meteor shower of November 18, 1999. The researchers detected distinct VLF sounds, and also found that many of the meteors were not even visible by eye, but were heard. In fact, 50 times more meteors were detected by their VLF signatures than by sight alone. Dennis Gallagher, a space physicist at the NASA Marshall Space Flight Center, said:

What makes this exciting is that we're talking about a phenomenon that has been experienced by people for perhaps thousands of years. Even in modern times folks who reported hearing such sounds were ridiculed. It was only about 25 years ago that Keay was able to do the research and legitimize the experiences of all those generations of people. It shows there are still wonders in nature yet to be recognized and understood. We should take this experience with meteors as a reason to open our minds to what may yet be learned." (end quote).

Well Mikey and I have finally laid to rest that one argument from way back then, that we did indeed likely hear that large meteor even though we have never heard another one! And for those of you now interested in a free subscription to EarthSky, you can go on EarthSky.org to subscribe. And the full article I have referenced here can be found at:

https://earthsky.org/space/whoosh-can-you-hear-a-meteor-streak-past?utm_source=EarthSky+News&utm_campaign=beb6e61828-EMAIL_CAMPAIGN_2018_02_02_COPY_01&utm_medium=email&utm_term=0_c643945d79-beb6e61828-394210309

*Article By ACA Member
Marnie Sanders*

Letter from the Editor

By Marissa Fanady

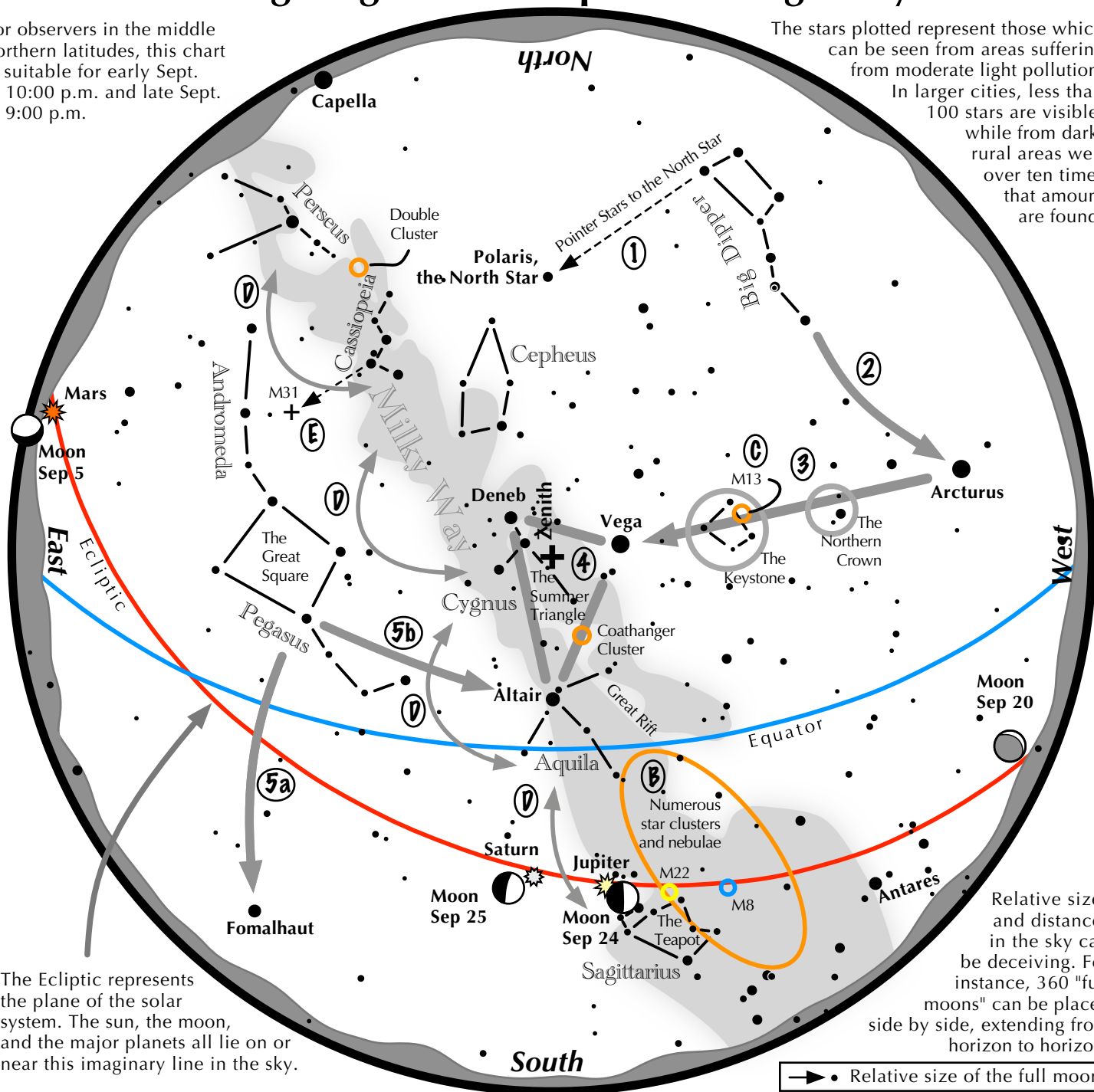
Hi all, just a friendly reminder that membership renewals are due this month. The membership is vital to pay observatory expenses and insurance as well as other activities and expenses. I know that COVID-19 is preventing the organization from meeting and hosting events but this will pass. This is a prime opportunity for the club to build up the savings account for future events and expenses. Please send your membership renewal as soon as possible to Dave Hartsook 4174 Meadow Wood Lane Uniontown, OH 44685-7717. Thank you all for your continued support.

*Article By Marissa Fanady
ACA Publications Secretary*

Navigating the mid September Night Sky

For observers in the middle northern latitudes, this chart is suitable for early Sept. at 10:00 p.m. and late Sept. at 9:00 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

Navigating the mid September night sky: Simply start with what you know or with what you can easily find.

- 1 Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the September evening sky.
- 3 Nearly overhead shines a star of similar brightness as Arcturus, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
- 4 The stars of the summer triangle, Vega, Altair, and Deneb, shine overhead.
- 5 The westernmost two stars of the Great Square, which lies high in the east, point south to Fomalhaut. The southernmost two stars point west to Altair.

Binocular Highlights

- A:** On the western side of the Keystone glows the Great Hercules Cluster.
- B:** Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
- C:** 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
- D:** Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.
- E:** The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.



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.

Asking: \$220 (cash)

Contact: Fred Fry

Email: riverfry@gmail.com

FOR SALE:

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

Focal length 2032 mm with 406x highest useful power.

Includes:

- GPS module.
- Five multicoated Plössl eyepieces.
- 2X Barlow lense.
- Seven filters.
- A/C adaptor.
- Night vision flash.
- Celestron star pointer.

All rarely used and in new condition.

Cost \$1,689 new.

Asking: Best Offer

Contact: Nick Bade

Email: nb@tribco.com

Phone: 216-486-2000 weekdays and

440-585-8687 evenings and

weekends.

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to the newsletter
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mfanady@yahoo.com

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August Treasurer's Report

By Dave Hartsook

8/1/2020 Through 8/31/2020

Checking Beginning Balance	\$1,668.67
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Income

Membership Dues Collected (1 Adult & 1 Family)	70.00
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Total Income	\$70.00
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Expenses

Bank Fee	-10.00
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Total Expenses	-\$10.00
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Income Less Expenses	\$60.00
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Checking Ending Balance	\$1,728.67
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Savings Beginning Balance	\$2,567.88
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Earned Interest	0.00
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Savings Ending Balance	\$2,567.88
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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	2,567.88
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Checking	1,728.67
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Grand Total	\$4,346.55
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Article by Dave Hartsook
ACA Treasurer.

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

www.acaoh.org
(PLEASE PRINT)

NAME: _____ PHONE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

EMAIL ADDRESS: _____

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

Visit us on the Web at www.acaoh.org,