

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio

May 2016

Website: blackriverastro.org

Newsletter submissions: [Editor](#)

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Wednesday, May 4, 7 p.m., Regular Meeting, Carlisle Visitors Center "The Iridium Satellites: Past, Present, and Future" by Rich Thompson

Friday, May 6, 9-11 p.m., Public observing, Nielsen Observatory (cloud backup date Saturday, May 7)

Monday, May 9, transit of Mercury, 7 a.m. - 2:30 p.m., southeast corner of Tappan Square, Oberlin (corner of Route 58 and College Street).

Thursday, May 12, 7 p.m. Board Meeting, Blue Sky Restaurant, Amherst, OH

Sunday, May 15, 11 a.m. - 3 p.m. Solar observing, Paddle and Peddle Fest, Lakeview Park, Lorain, OH

Friday, May 27, 10 p.m. - midnight, Public observing, Nielsen Observatory (cloud backup date Saturday, May 28) * * * * *

Wanted: More Contributions to the *Guidescope*

If you have anything you'd like to share with the local amateur astronomy community via this newsletter please send it my way for inclusion in upcoming editions. Anything astronomy-related is welcome, and either objective or subjective content is fine. An e-mail link for submissions is [here](#).

And many thanks to all who've been contributing photos and articles.

Visit Our Website

Explore the informative BRAS [website](#) and all its interesting, timely [links](#), and join the interactive members-only [BRAS Forum](#) to better keep in touch.

BOARD SUMMARY

APRIL 14, 2016

The Board of Directors met at the Blue Sky Restaurant at 7:00 p.m. with 10 Directors present. The minutes of the March meeting were read and approved as was the Treasurer's report. Committee reports followed with the [Guidescope](#) editor Bill Ruth reporting that all is well and that he has had some submissions from members. Lee Lumpkin reported that the website is running well, but some TNS notifications are bouncing back. This may be because some people have changed carriers while keeping the same phone number. If anyone who signed up for text notifications about club events is not getting them, please contact Lee Lumpkin or Steve Schauer. Instrumentation is status quo with the observatory coming through the winter very well. The digital setting circles on the Losmandy mount are still not working well, so Schauer and Kreja will try to troubleshoot them some night when we do not have a star party in progress. (Update: Kreja and Schauer spent several hours trying to initialize and use the digital setting circles and believe there is a mechanical problem. It may be a cable, although

several have been replaced, or an encoder may be faulty. Further investigation will follow.) The OTAA committee reported that John Reising has confirmed our date (Sept 3rd) with the Birmingham Methodist Church, and door prizes are starting to come in due to the efforts of Jeff Walsh and Greg Zmina. Finally the Metro Parks liaison has been in contact with Jannah Wilson at Mill Hollow about the World Wide Solstice Festival and will meet with her again soon.

Programming is as follows:

May	Rich Thompson	The Iridium satellites, their history, use and future
June	Len Jezior	Understanding R.A.
July	Denny Bodzash	10 Unsolved Mysteries of Cosmology and Astronomy
Aug.	Barb Hubal	Spectroscopy
Sept.	Dave Lengyel	Transit of Mercury photos taken by members (tentative)
Oct.	Open	Elections, Annual Meeting of the Members, short program
Nov.	Open	Open to any member interested
Dec.	Annual Christmas Party and pot luck at LCMP Amherst Beaver Creek Reservation.	

Old Business came next with the World Wide Solstice Festival (June 26) being the first topic. Steve Schauer reported that Gary Smith will bring the “Worlds Largest Portable Sundial” and has several other ideas he is considering. The interactive solar displays/workshops we used last year belong to John O'Neal who has moved to North Carolina. Dan Walker is trying to find out if we can obtain replacements from the Dark Sky Network, to which we belong. These displays are not on their website, so Dan will call them. We have one food truck, Chubby's Bar B Que, coming, and there will also be live music and solar movies.

The next topic was the Transit of Mercury on Monday, May 9th. We will set up our solar telescopes on Tappan Square in Oberlin to show this event to the public. The event will start at approx. 7:30 a.m. and continue until 2:30 p.m. We will be on the southeast corner of the square across from the Oberlin Inn construction to the east and Agave to the south. Dave Lengyel will be there as early as 6:30 a.m. with many of us arriving closer to 7:00 a.m. Members are encouraged to join us especially if you have a solar telescope or a scope with a solar filter. Hydrogen alpha filters are great, but for a transit, white light filters are excellent. If you need to drive a mount, it is suggested you use battery power as we do not believe electricity will be available. This is a major outreach opportunity with engaging and educating the public as one

of the club's purposes. This is also a great opportunity to attract new members.

Similarly, we will also participate in the Lorain County Metro Park's Paddle and Pedal Festival on Sunday May 15th. This event will be at Lakeview Park in Lorain and will start at 11:00 a.m. and continue until 3:00 p.m. We will also be doing solar observing and will need members with solar scopes to help out. We will start setting up at 10:00 a.m. and will locate on the east side of the Rose Cafe. At both the Transit of Mercury and the Paddle and Pedal Festival, we will also need members to pass out club literature and answer questions, so there is opportunity to participate even if you don't own a solar telescope.

The last item of Old Business was brief planning for an Observatory Clean-Up Day. This will be Sunday May 29th from 1:00-?????. This is during the long Memorial Day weekend, when we also have Public Observing on Fri./Sat. the 27/28th. Members are invited to help with the cleaning which will be rain or shine.

Next came five items of New Business. The first was the appointment of a new Board Member to finish out the term of John O'Neal who has moved. The Board voted to appoint Mickey Hasbrook to join the Board until October when that term expires. Mickey can then stand for election if she desires. Welcome Mickey!

Secondly was a brief reminder that the Amherst Library may contact us about doing solar observing and having inside programs sometime in June or early July in conjunction with their summer reading program.

The next item of New Business was an inventory of club property that is being stored in the homes of Board members due to the lack of storage at the observatory. Many Directors have turned in an inventory sheet with the others promising to do so. These should go to the President who will compile them.

We next had the pleasant duty of voting to accept the membership of Daniel McGann, who we welcome into the club! Please see me at the next meeting Dan, for a new member packet.

Finally Schauer updated the Directors on who will need to stand for reelection at the October meeting. The Directors whose terms expire are Dan Walker, currently serving as Treasurer; Jeff Walsh; Micky Hasbrook, currently finishing the term of John O'Neal; and Steve Schauer, presently serving as President. In 2017, the terms expire for Lee Lumpkin, Tim Kreja and John Reising while in 2018 Greg Cox, Greg Zmina, Bill Ruth and Dave Lengyel will have their terms expire.

Dates for a busy month of May are:

Wednesday	May 4	General Meeting	7:00 p.m.	Carlisle Visitors Center
Fri./Sat.	May 6/7	Public Observing	9:00-11:00p	Nielsen Observatory
Monday	May 9	Transit of Mercury	7:00a-2:30p	Tappan Sq. Oberlin
Thursday	May 12	Board Meeting	7:00 p.m.	Blue Sky Restaurant
Sunday	May 15	Paddle/Pedal Festival	11:00a-3:00p	Lakeview Park, Lorain
Fri./Sat.	May 27/28	Public Observing	10:00-midn.	Nielsen Observatory
Sunday	May 29	Observatory Clean-Up	1:00 p.m.-??	Nielsen Observatory

~Steve Schauer

The Emerald Month: a Gem for Astronomy

May is nicknamed the Emerald Month, undoubtedly due to the fact that May is guaranteed to bring an explosion of green to the trees as they gain their leaves thanks to the fact that Old Man Winter has finally released his icy grip on the region. For astronomers, the gem analogy is also appropriate as May brings what is probably the best viewing, and viewing conditions, of the year.

In the sky come dark, the spring sky is up in all its glory. Use the Big Dipper Signpost (highlighted in last month's *Guidescope*) to start finding your way around the sky, specifically the spring's most prominent constellations and all the telescopic treasures they contain. It should be noted that spring is galaxy season as more grace the spring sky than any other season.

Moving later into the night, or getting up before the predawn brightening begins, offers a summer preview, whose highlight has to be the stunning Milky Way, which arches up through the Scorpius/Sagittarius region and overhead through the Summer Triangle, after which it begins to thin as one starts to look away from the galactic center. As for constellations, all of the familiar favorites are up, so be sure to look for: Corona, Hercules, Lyra, Cynus, Aquila, Ophiuchus, Sagitta, and Delphinus. Additionally, the Big Dipper should still be reasonably well-placed, too.

In terms of deep sky objects, summer offers perhaps the greatest variety of objects of all the seasons. However, the real highlight in terms of sheer numbers has to be the globular clusters, which congregate near the plane of the Milky Way. While not nearly as numerous, several stunning nebulae also populate the summer sky, namely the Lagoon, Trifid, Omega/Swan, Eagle, Ring, and Dumbbell, all of which are bright and easy to find.

If the sky itself weren't enough, then there's the viewing conditions. For us in Northern Ohio, May is the first month where one can jettison the winter coat for the season. By month's end, T-shirt weather will be becoming the norm. In addition to the pleasant temperatures, it's also what's not present that makes the month of May so great for astronomy: namely the lack of humidity/haze and bugs, both

of which will be prevalent in summer and, as for the insects, well into fall.

So, while the nights in May are getting pretty short on time, they can be big on fun, so make it a point to get out and do some observing this month.

~Denny Bodzash



Here is comet 252P/LINEAR the morning of 4/12/16 in Ophiuchus. It appeared larger than M12 and I found it easily in binoculars. The photo picked up the green color nicely. I estimate it to be about 6th magnitude. ~Dave Lengyel

20 Tips for Better Observations

1. Stay away from artificial lighting. Use deep & dim red light only to help see in the dark. Night vision takes from 20 to 40 minutes to build up and only a few seconds to destroy by exposure to white light.
2. Tape red cellophane over cell phones displays, tablets and other electronic devices used during observation. While many astronomy applications display in night vision red, an incoming call will return the display back to normal white light. Surprise!
3. When peering through an eyepiece, keep BOTH eyes open. (Closing one eye causes vibration & other unwanted effects in the other eye.) Remove your spectacles when viewing. Get a neckband for 'em.
4. If using eyepiece filters and the eye cup position allows, you can drop the filter directly onto the eyepiece relief cup for temporary use.
5. Consider purchasing/using a "Broadband" filter. They greatly reduce light pollution. Color filters work best against their compliment... blue for a red Mars or orange Jupiter. Red or orange for a blue Neptune, a banded Saturn or the Moon in a light blue sky.
6. Use an eyepiece of appropriate magnification. Low magnification, 50x or less for browsing the night sky and moon. 50x ~ 150x for deep space objects. 150x + is best for planetary observation. Deep space objects are more apt to be dim rather than small. (The full Andromeda Galaxy is larger than a full Moon.)
7. Using a Barlow lens significantly reduces light. A 2X yield 1/4th the light. A 3X Barlow reduces light by 9 times. A 5X Barlow reduces light to 1/25th of what is observed without.
8. To aid in focusing, cut 2 large holes in a sheet of cardboard and place over the telescope's primary aperture. While observing, focus the scope until the 2 images merge into 1, then remove.
9. Set up your telescope on grass rather than concrete or tarmac. Hard surfaces hold solar heat causing distortion in cool evening air.
10. If setting up a tripod on a soft surface, pushing or spreading the legs firmly into the ground prevents the set-up from moving during use. Hang a heavy weight from its center to improve stability and reduce wind vibration.
11. Let your 4" telescope acclimate to the night temperature for about 20 minutes before using. Add 10 minutes for every inch greater than 4. (For 10" scope: $10-4=6$ $6 \times 10=60$ $60+20=80$ $10" = 1 \text{ hr } 20 \text{ min.}$)
12. Anticipate cooler evening & night temperatures. Dress accordingly. Remember to bring the bug repellent on those warm summer evenings.
13. When using a telescope for solar observation, a primary aperture sun filter is best. Eyepiece filters are not recommended as when the sun drifts off-axis, it will burn or melt tubes, eyepiece barrel and any other plastic components.
14. Always caution both children AND THEIR PARENTS about observing the Sun.
15. When using a telescope for solar observation, create a shadow along the line of sight with a cardboard shield attached to the front of the scope. It makes for easier observation.
16. When viewing deep space or other dim objects, look at the object indirectly (averted) rather than straight on. The eye's peripheral vision sees dim objects better than at center.
17. Observing small or faint objects is improved by inducing slight movement of the telescope. The eye

has better visual acuity with motion.

18. Keep a log of your observations. Writing what you see will improve your power of observation.

19. Review your star charts of objects appropriate for the time and place of your observations BEFORE going remote.

20. The higher a celestial object's declination, the less distortion is encountered because of less atmospheric penetration.

BONUS TIP: Are you using binoculars to observe the night sky? Relieve neck-strain by looking down into a good-quality mirror (like a bathroom medicine cabinet mirror).

~Len Jezior



Nice right triangle of Saturn, Mars and Antares on the morning of 4/12/16. ~Dave Lengyel