

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio
Website: blackriverastro.org

September 2019
Newsletter submissions: [Editor](#)

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- Wednesday, September 4, 7 p.m.: Regular meeting, Carlisle Visitors Center, Program: Member survey results and personal astronomy origin stories
 - Friday, September 6, 9-11 p.m.: Public observing, Nielsen Observatory (cloud backup date Saturday, September 7)
 - Thursday, September 12, 7 p.m.: Board meeting, Blue Sky Restaurant, Amherst, OH
 - Saturday, September 22, 1-4 p.m.: Solar observing, Sandy Ridge
 - Sunday, September 23, 5 p.m. - ? CAA OTAA, Letha House Park, Medina County
 - Saturday, September 28, 5 p.m. - ? BRAS OTAA, Birmingham United Methodist Church hall and field
- * * * * *

Visit Our Website

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

Guidescope Contributions Wanted

If you have any wanted/for sale announcements, astronomical photos you've taken, interesting article links, equipment reviews, observing reports, essays, or anything that you think to which the local amateur astronomy community could relate, please send it to your [humble Guidescope editor](#) for inclusion in forthcoming issues.

The BRAS OTAA Convention/70th Anniversary Celebration

Every year, area astronomy clubs host an Ohio Turnpike Amateur Astronomers convention, to which the other area clubs are invited. Our convention this year is special because **it is the celebration of our 70th Anniversary as an organization**. For those who have not attended before, we start with a pot luck dinner where everyone is asked to bring a dish to pass. The club will provide paper plates, plastic utensils, bottled water, hot dogs, pulled pork and a cake. We also provide coffee, tea and hot chocolate. Registration is \$5.00 which we charge to pay for the hall. The location is the hall behind the Birmingham United Methodist Church on South Street in Birmingham, Ohio. The date is Saturday September 28th with registration starting at 5:00 p.m. and dinner at 6:00 p.m.

After dinner, we will have door prizes, Dr. Rob Owen speaking on the latest research on black holes, and some surprises regarding our anniversary. After all this, we set up telescopes in the large open field behind the hall to do observing. This is a surprisingly dark location, and if the weather cooperates, dozens of telescopes will be available for us to enjoy. This is a nice opportunity for members new to astronomy to look through many different types of telescopes and to ask questions, and for our experienced observers to greet old friends and to network. This event is for astronomy club members and their guests and is not open to the public, so it is time for us to observe.

This is an important event for our club into which a lot of work and planning has been poured. We hope as many BRAS members and their families as possible will attend. The food is good, the company is better, we have enough door prizes that everyone should get one, and if the weather cooperates, we can observe all night. Please note that the hall is heated and air conditioned with rest rooms, and that the event is rain or shine. Come join us!

BOARD SUMMARY August 15, 2019

The July Board of Directors meeting was called to order at 6:58 p.m. with 10 Directors present. The Minutes from the July meeting were read and approved as was the Treasurer's Report. Committee reports followed with Bill Ruth the *Guidescope* editor reporting that all was well, and the Website Chair reporting that the website was operating as intended with one exception. Under the "weather" tab, the Unisys radar does not seem to be updating. Under Instrumentation, it was reported that Herb Hadders borrowed the Meade 4 1/2" Dobsonian loaner scope for a trip to the John Glenn Observatory Park. The OTAA Chairman reminded everyone that the MVAS OTAA was Saturday, August 24th with registration starting at 5:00 p.m. and dinner at 6:00 p.m. The other dates are the CAA OTAA on Saturday, September 21st at Letha House Park, and the BRAS OTAA on Saturday, September 28th starting with registration at 5:00 p.m. at the United Methodist Church hall in Birmingham, Ohio. The Metro Parks Liaison reported that work on constructing the new storage building was on hold until after the Lorain County Fair. Work would resume on Monday, August 26th.

Programming is as follows:

| | | |
|-------------|-----------------------------|---|
| September | Steve Schauer | Survey results and member spark stories |
| October | Elections and a short video | |
| November | John Reising | The Oberlin College Planetarium |
| December | Holiday Pot Luck | Amherst Beaver Creek Reservation |
| <u>2020</u> | | |
| January | Astronomy Video | |
| February | Open | |
| March | Open | |
| April | Steve Schauer | The Year in Review--Photos of club activities in 2019 |
| May | John Reising | The life of William Herschel |
| June | Denny Bodzash | Orbiting the Cuckoo's Nest--the Weirdest Ideas in Astronomy History |
| July | Open | |
| August | John Reising | The Mars Opposition |
| September | Open | |
| October | Elections and a short video | |
| November | Open | |

Old Business followed with the first item being a reminder about elections in October. The terms of Mickey Hasbrook, Steve Schauer, Dan Walker, and Jeff Walsh will end, and all four reported that they would run again. In 2020, the terms of Tim Kreja, Dave Levin, and John Reising will be up.

The second item of Old Business was a discussion of the Metro Parks Sunset Beach Festival at Lakeview Park which was planned for Saturday, Aug. 17 from 3:00-8:30 p.m. We are attending and from 3:00-6:00 p.m. we would be in the Cafe showing educational displays and handing out club literature while outside we would do solar observing. Then from 6:00-8:30 p.m., we would continue solar observing outside, weather permitting. We discussed who would arrive at what time and how

many solar scopes we would have. Mickey Hasbrook will bring the “Our Magnetic Sun” toolkit and Dan Walker will bring his one meter sun display. Schauer will bring the club banner and club literature and a canopy for some shade for those doing solar observing.

The third item of Old Business was a discussion of the MVAS OTAA. Tim Kreja will be the featured speaker and will give his program on the colonization of Mars.

The final item was more planning for our OTAA Convention on September 28th. Since we will be celebrating our 70th Anniversary, there is a little more planning than normal. We decided that we would open the hall at 4:00 p.m. with registration starting at 5:00 p.m. and dinner at approx 6:00 p.m. For dinner, we will have our usual pot luck with the club providing hot dogs and, new this year, pulled pork being made by Mickey Hasbrook. Door prizes are starting to come in with a pair of Celestron 15X70 binoculars, a pair of Oberwerk 8X40 binoculars, gift certificates to *Astronomy* Magazine and a Sky Scout, ready to go. We also have a Sky and Telescope Pocket Sky Atlas, and an Orion Telescope Observer's Guide among other books. Oberlin Professor Rob Owen will speak on the latest research on Black Holes, and we are considering running a slide show about the Nielsen Observatory on a loop.

New Business followed with Mickey Hasbrook providing information about cakes we will purchase to celebrate our 70th anniversary. We decided to get a full sheet cake which will serve 60 people. Half will be a carrot cake with buttercream icing and cream cheese buttercream filling, and half will be chocolate with raspberry filling. The BRAS logo and 70th Anniversary will be on the top. Mickey reported that it might be possible to get the cake at an “at cost” discount that is available on a case by case basis to non-profit organizations. Schauer will write a letter to the manager of the Giant Eagle Supermarket in Vermilion asking for such a discount.

The last piece of New Business was a discussion of the results of the recent survey of members where people were asked what topics they would like to see presented at monthly meetings. The most requested topics were:

- Astrophysics and theory
- How to Observe Deep Sky Objects
- How to do Astrophotography
- Astrophotography equipment
- Astronomy Apps
- Space Program
- How to build a backyard observatory

These are topics we will consider for programs in the coming year. At the August meeting we already had a program on astrophotography, and Rob Owen will be speaking at our OTAA on Black Holes.

Dates were set, and the meeting was adjourned at 8:42 p.m.

~Steve Schauer

Deep-Sky Objects for September

| Objects for Binoculars | | | | | | | |
|--|----------|----------|----------|-------------|------|--------|--------------------------------|
| RA | Dec | Number | Mag(s) | Size/Sep. | PA | Const. | Type of Object |
| 22 ^h 43.0 ^m | +30° 13' | 44 Peg | 2.9, 9.9 | 90.4" | 339° | Peg | Double Star |
| 23 ^h 24.2 ^m | +61° 35' | M52 | 6.9v | 12' | | Cas | Open Cl. 100+ |
| 00 ^h 42.7 ^m | +41° 16' | M31 | 3.4v | 18.5'x7.5' | | And | "Great Andromeda Galaxy" |
| 02 ^h 19.0 ^m | +57° 09' | NGC 869 | 5.3v | 29' | | Per | OC 200+ "Double Cluster" |
| 02 ^h 22.4 ^m | +57° 07' | NGC 884 | 7.3v | 348" | | Vul | OC 115+ "Double Cluster" |
| 02 ^h 42.0 ^m | +42° 47' | M34 | 5.2v | 35" | | Per | Open Cl. 60+ |
| Objects for Small Telescopes (2-6 inch) | | | | | | | |
| RA | Dec | Number | Mag(s) | Size/Sep. | PA | Const. | Type of Object |
| 01 ^h 33.2 ^m | +60° 42' | M103 | 7.4v | 6' | | Cas | Open Cluster 25+ |
| 01 ^h 36.7 ^m | +15° 47' | M74 | 9.4v | 11.0'x11.0' | | Psc | Galaxy |
| 01 ^h 42.4 ^m | +51° 34' | M76 | 10.1v | 65" | | Per | PI Neb "Little Dumbbell" |
| 01 ^h 57.8 ^m | +34° 41' | NGC 752 | 5.7v | 50' | | And | Open Cluster 60+ |
| 02 ^h 03.9 ^m | +42° 19' | Gamma | 2.3, 5.5 | 9.8" | 63° | And | Double Star |
| 02 ^h 22.6 ^m | +42° 21' | NGC 891 | 9.9v | 13.0'x2.8' | | And | Galaxy |
| Objects for Medium Telescopes (8-14 inch) | | | | | | | |
| RA | Dec | Number | Mag(s) | Size/Sep. | PA | Const. | Type of Object |
| 20 ^h 53.5 ^m | -12° 32' | M72 | 9.3v | 5.9' | | Aqr | Globular Cluster |
| 22 ^h 37.1 ^m | +34° 25' | NGC 7331 | 9.5v | 10.5'x3.7' | | Peg | Galaxy |
| 22 ^h 37.4 ^m | +23° 48' | NGC 7332 | 11.1v | 3.7'x1.0' | | Peg | Galaxy, Pair w/NGC 7339 |
| 23 ^h 04.9 ^m | +12° 19' | NGC 7479 | 10.8v | 4.0'x3.1' | | Peg | Galaxy |
| 23 ^h 25.9 ^m | +42° 33' | NGC 7662 | 8.3v | 12" | | And | PI Neb "Blue Snowball" |
| 00h03.3 ^{h m} | +16° 09' | NGC 7814 | 10.6 | 6.0'x2.5' | | Peg | Galaxy |
| Objects for Larger Telescopes (16-inch & larger) Challenge Objects | | | | | | | |
| RA | Dec | Number | Mag(s) | Size/Sep. | PA | Const. | Type of Object |
| 21 ^h 36.9 ^m | +12° 47' | NGC 7094 | 13.4v | 95" | | Peg | Planetary Nebula |
| 22 ^h 29.6 ^m | -20° 48' | NGC 7293 | 7.3v | 769" | | Aqr | "Helix Neb" (Use O-III filter) |
| 22 ^h 36.1 ^m | +33° 57' | NGC 7320 | 12.6v | 1.7'x0.9' | | Peg | Br Gx in Stephan's Quintet |
| 23 ^h 54.1 ^m | +20° 07' | NGC 7771 | 12.2v | 2.3'x1.1' | | Peg | Galaxy w/NGCs7770, 7769 |
| 01 ^h 33.9 ^m | +30° 39' | M33 | 5.7v | 67.0'x41.5' | | And | "Pinwheel Galaxy" |
| 03 ^h 10.3 ^m | +61° 19' | IC 289 | 13.3v | 34.0' | | Cas | Planetary Nebula |

Print and use the [Deep-Sky Interest Group - Observation Form](#) to record your observations.

Thanks to Len Jezior for deep sky objects chart.

E21

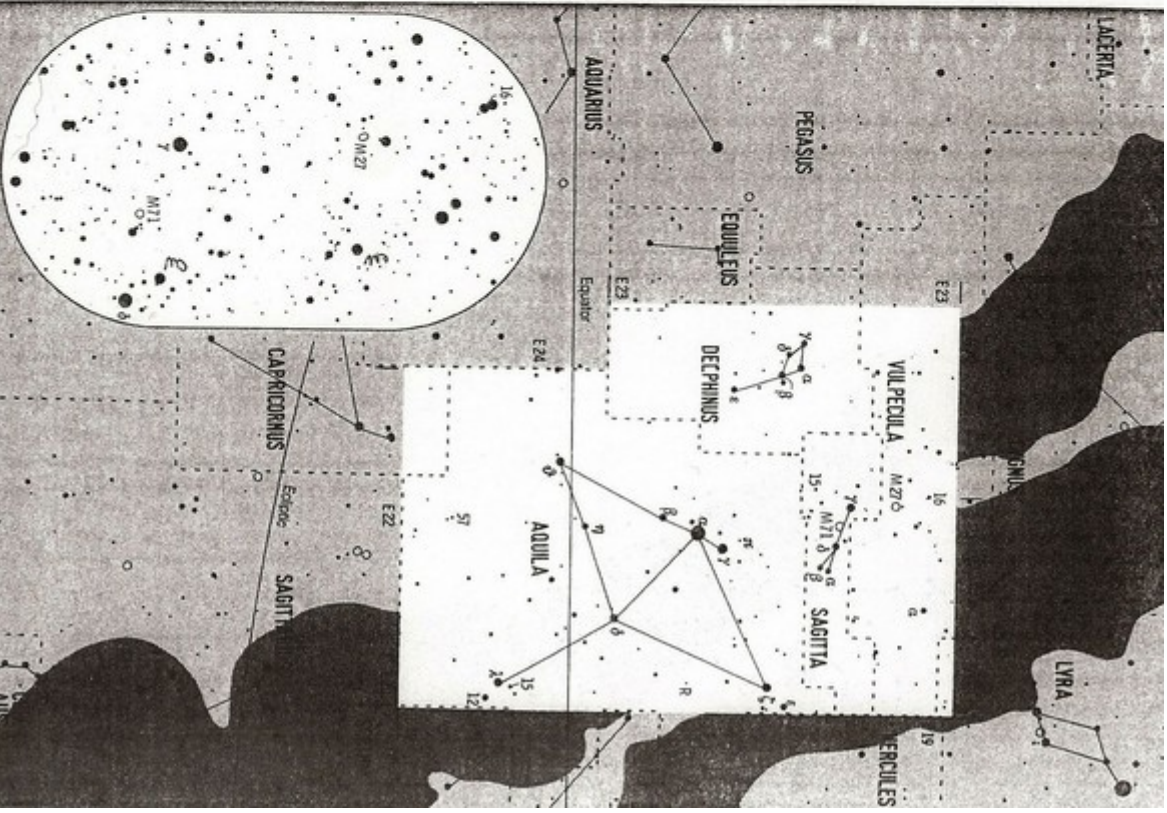
Equator, Ecliptic Summer Constellations

| NEBULA | Position | v-Mag. | Size | Sharp | Type | Vis. | Dist. | R.A. | Dec. |
|----------|----------|--------|-------|-------|------|------|---------|--|---------------|
| 6838 M71 | Sge | 8 | 12/1' | 5' | O IX | GC | 13000ly | 19 ^h 53 ^m 8 ^s | 18°78' |
| 6853 M27 | Vul | 6 | 7 | 10 | 7 | O A | PN | 1000 | 19 59.6 22.72 |

6838 M71 Interesting features, triangular shape, resolved into stars in a telescope, low number of stars, looks similar to some open clusters.
 6853 M27 Dumbbell Nebula, may be the most beautiful planetary, shape visible in binoculars, more detail in a telescope, greenish color, southwestern lobe is brighter, extended faint halo requires nebula filter.

| STAR | Position | V-Mag. | B-V | Te. | Abs. | Name | Dist. | R.A. | Dec. |
|------|----------|---------|------|-----|----------------|--------------|---------|--|---------------------|
| 13 ε | Aql | 4.0 | 1.1 | 1 | 1 ^m | | 150ly | 18 ^h 59 ^m 3 ^s | 15 ^o 07' |
| 12 | Aql | 4.0 | 1.1 | 1 | | | 150 | 19 01.7 | -5.74 |
| 15 | Aql | 5.2 | * | 1.2 | 0 | | 330,600 | 19 05.0 | -4.03 |
| 17 ζ | Aql | 3.0 | 0.0 | 1 | | | 84 | 19 05.4 | 13.86 |
| 16 λ | Aql | 3.4 | -1.1 | 0 | | | 125 | 19 06.2 | 14.89 |
| R | Aql | 5.8-10 | 1.3 | -1 | | | 700 | 19 06.4 | 8.23 |
| 30 δ | Aql | 3.4 | 0.3 | 1 | 2 | | 50 | 19 25.5 | 3.11 |
| 6 α | Vul | 4.4 | 1.5 | 0 | | | 300 | 19 28.7 | 24.66 |
| 5 α | Sge | 4.4 | 0.8 | -1 | | Sep. 35' | 460 | 19 40.1 | 18.01 |
| 6 β | Sge | 4.4 | 1.0 | -1 | | Tarazed | 500 | 19 46.3 | 10.61 |
| 50 γ | Aql | 2.7 | 1.5 | -3 | | | 460 | 19 47.4 | 18.53 |
| 7 δ | Sge | 3.7 | 1.3 | -2 | | | 500 | 19 48.7 | 11.82 |
| 52 π | Aql | 5.7 | * | 0.5 | 0 | | 16.7 | 19 50.8 | 8.87 |
| 53 α | Aql | 0.8 | 0.2 | 2 | | Alair, Alair | 1400 | 19 52.5 | 1.01 |
| 55 η | Aql | 3.5-4.4 | 0.7 | -5 | | | 350 | 19 54.6 | -8.23 |
| 57 | Aql | 5.3 | * | -1 | 0 | | 45 | 19 55.3 | 6.41 |
| 60 β | Aql | 3.7 | 0.9 | 1 | 3 | Alschain | 260 | 19 58.8 | 19.49 |
| 12 γ | Sge | 3.5 | 1.6 | -1 | | | 220 | 20 02.0 | 24.94 |
| 16 | Vul | 5.2 | * | 0.4 | 1 | | 58,600 | 20 04.1 | 17.08 |
| 15 | Sge | 5.4 | * | 0.5 | 0 | | 280 | 20 11.3 | -0.82 |
| 65 θ | Aql | 3.2 | -1.1 | -1 | | | 350 | 20 33.2 | 11.30 |
| 2 ε | Del | 4.0 | -1.1 | -1 | | | 100 | 20 37.5 | 14.60 |
| 6 β | Del | 3.6 | 0.4 | 1 | | | 240 | 20 39.6 | 15.91 |
| 9 α | Del | 3.8 | -1.1 | -1 | | | 210 | 20 43.5 | 15.07 |
| 11 δ | Del | 4.4 | 0.3 | 1 | 0 | | 105 | 20 46.7 | 16.12 |
| 12 γ | Del | 3.9 | * | 0.8 | 1 | | | | |

| BINARY | Position | V-Mag. | B-V | Te. | Sep. | PA | Vis. | R | Period | Max. | Min. |
|--------|----------|--------|-----|------|------|------|------|-----|-----------|-----------|-----------|
| 15 | Aql | 5.4 | 7.0 | 1.1 | 1.5 | 39° | ✓ | Aql | ≈ 280 d | 2451285 | 7.1767 d |
| 52 π | Aql | 6.3 | 6.8 | 0.8 | 0.1 | 1.4 | ✓ | Aql | ≈ 2451285 | 7.1767 d | 2451206.0 |
| 57 | Aql | 5.7 | 6.5 | -1.1 | 0.0 | 35.7 | ✓ | Aql | 7.1767 d | 2451206.0 | 2015 8.9 |
| 16 | Vul | 5.8 | 6.2 | 0.3 | 0.4 | 0.9 | ✓ | Aql | 2015 8.9 | 2015 8.9 | 2015 8.9 |
| 15 | Sge | 5.8 | 6.9 | 0.6 | 0.1 | 1.1 | ✓ | Aql | 2015 8.9 | 2015 8.9 | 2015 8.9 |
| 12 γ | Del | 4.3 | 5.1 | 1.0 | 0.5 | 11.0 | ✓ | Aql | 2015 8.9 | 2015 8.9 | 2015 8.9 |
| 9 ε | Sge | 5.5 | 9.0 | 0.2 | 0.2 | 8.4 | ✓ | Aql | 2015 8.9 | 2015 8.9 | 2015 8.9 |



Thanks to John Reising for constellation of the month.

Larry Janowicz Optics

| | Price / Make Offer |
|---|--------------------|
| ES 4.7mm UWA 82° field | 90 |
| Celestron 8-24 mm Zoom | 40 |
| Orion 20mm Expanse 66°field | 30 |
| Orion 9mm Expanse 66°field | 30 |
| Gen 6mm Expanse like 66°field | 25 |
| Orion Shorty Barlow | 25 |
| 32mm wide field Kellner | 25 |
| Binoes | |
| B & L 8x36 | 30 |
| Oberwerk 12x60 | 30 |
| Sans & Streiffe 7x35 wide angle | 25 |
| J C Penney 7x35 wide angle 12° field | 25 |
| Pentax 16x50 | 25 |
| Magna 8x30 | 20 |
| Paloma 8x30 | 20 |
| Finders & Diagonals | |
| Celestron Prism | 20 |
| Generic Hybrid .965 to 1.25 | 20 |
| Generic 1.25 | 20 |
| Generic .965 Prism | 15 |
| Celestron 6x30 ST Correct Image | 25 |
| Synta 6x30 ST | 20 |
| Generic 6x30 ST | 20 |
| Generic 6x20 ST Correct Image | 25 |
| Tripods & Mounts | |
| Tele Vue Tele Pod Tripod & Dove Tail Mt | 250 |
| Bogen 3011 with 3126 Head | 75 |
| Bogen 3040 with Dwarf Star Alt/AZ Head | 75 |

Anyone interested can either call me or email me at the number and email address listed below:

John Reising
440-822-5070
jcrstarguy57@yahoo.com

Most Recent Photos of Storage Building Progress at the Nielsen Observatory





Photos by Steve Schauer.