



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

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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 ½" 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	Pl 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	Pl 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/NGCs 7770, 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	Shape	Type	Vls.	Dist.	R.A.	Dec.
6838 M71	Sge	8 ¹	12 ^{5'}	5'	O IX GC	[E]	13000 ly	19 ^h 53 ^m .8	18 ^o 78
6853 M27	Val	7	10	7	O A PN	[■]	1 000	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, southern lobe is brighter, extended faint halo requires nebula filter.

STAR Position V-Mag. B-V Te. Abs. Name Dist. R.A. Dec.

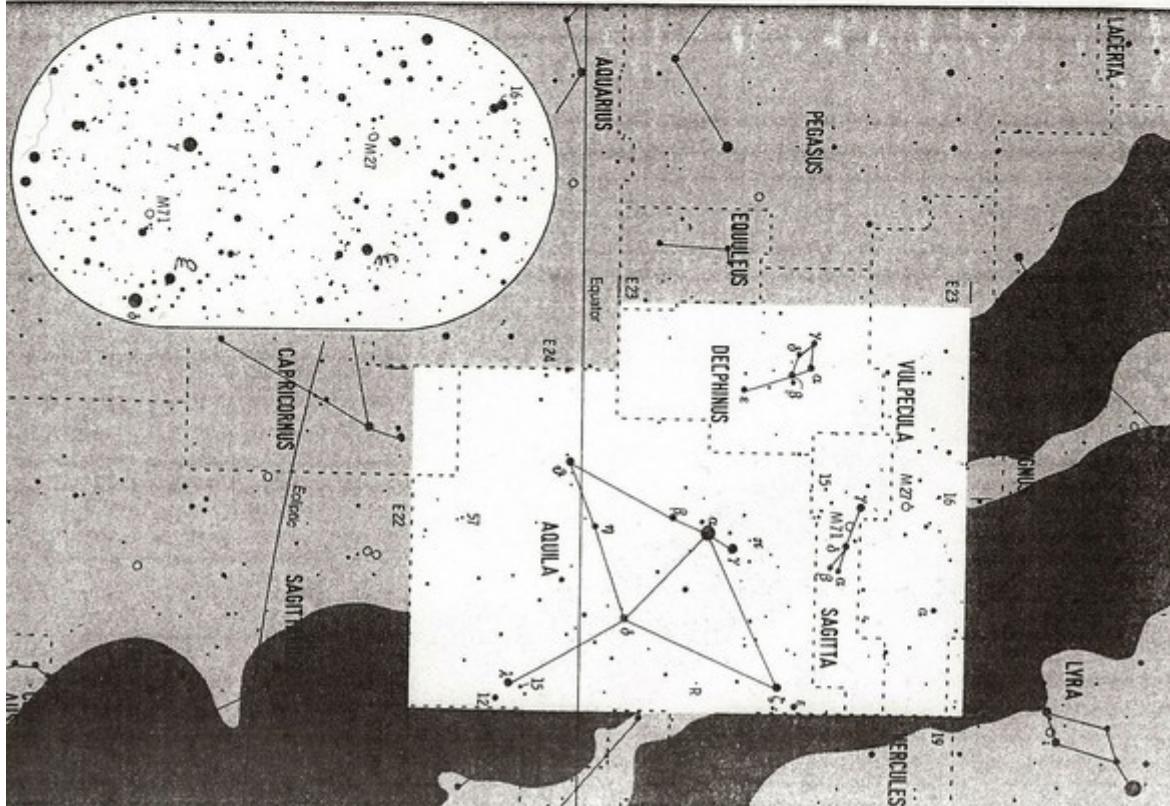
STAR	Position	V-Mag.	B-V	Te.	Abs.	Name	Dist.	R.A.	Dec.	
13 ε Aql	•	4.0	1.1	1 ^m	...	150ly	18 ^h 59 ^m .6	15 ^o .07		
12 Α Aql	•	4.0	1.1	1	...	150	19 01.7	-5.74		
15 Α Aql	•	5.2	*	1.2	0	330	19 05.0	-4.03		
17 Ζ Aql	•	3.0	0.0	1	1	84	19 05.4	13.86		
16 Α Aql	•	3.4	-1	0	...	125	19 06.2	14.88		
30 δ Aql	•	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	1	0	300	19 28.7	24.66		
5 α Sge	•	4.4	0.8	-1	1	460	19 40.1	18.01		
6 β Sge	•	4.4	1.0	-1	1	460	19 41.0	17.48		
50 γ Aql	•	2.7	1.5	-3	Tarazed	500	19 46.3	10.61		
7 δ Sge	•	3.7	1.3	-2	...	460	19 47.4	18.53		
52 π Aql	•	5.7	*	0.5	1	500	19 48.7	11.82		
53 α Aql	•	0.8	0.2	1	2	Altair, Altair	16 ^h 7	19 50.8	8.87	
55 η Aql	•	3.5-4.4	0.7	-5	...	1400	19 52.5	1.01		
57 ι Aql	•	5.3	*	-1	0	350	19 54.6	-8.23		
60 β Aql	•	3.7	0.9	3	Alschain	45	19 55.3	6.41		
12 γ Sge	•	3.5	1.6	-1	...	260	19 58.8	19.49		
16 Vul	•	5.2	*	0.4	1	220	20 02.0	24.94		
15 Sge	•	5.4	*	0.5	0	58,600	20 04.1	17.08		
65 φ Aql	•	3.2	-1	-1	...	280	20 11.3	-0.82		
2 ε Del	•	4.0	-1	-1	...	350	20 33.2	11.30		
6 β Del	•	3.6	0.4	1	1	100	20 37.5	14.60		
9 α Del	•	3.8	-1	-1	...	240	20 39.6	15.91		
11 δ Del	•	4.4	0.3	1	0	210	20 43.5	15.07		
12 γ Del	•	3.9	*	0.8	1	105	20 46.7	16.12		

BINARY Position V-Mag. B-V Te. Sep. PA Vis.

BINARY	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.
15 Aql	•	5.4	7.0	1.1	1.5	44	39°
52 π Aql	•	6.3	6.8	0.8	0.1	14	1.4
57 Α Aql	•	5.7	6.5	-1.0	0.0	11	35.7
16 Vul	•	5.8	6.2	0.3	0.4	11	0.9
15 Sge	•	5.8	6.9	0.6	1.1	215	*
12 γ Del	•	4.3	5.1	1.0	0.5	110	9.2
9 ε Sge	-	5.5	4.0	0.2	0.2	2015	8.9
92							3.4

VARIABLE STAR

R Aql	Period	Max.
■	≈ 280 d	
■	≈ 2451285	
■	7.1767 d	
■	2451206.0	
Min.	Max. + 4.5	



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
Binocs	
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
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Most Recent Photos of Storage Building Progress at the Nielsen Observatory





Photos by Steve Schauer.