

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio
Website: blackriverastro.org

September 2017
Newsletter submissions: [Editor](#)

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- Sunday, September 3, 1-4 p.m.: Solar observing, Sandy Ridge Reservation
 - Wednesday, September 6, 7 p.m.: Regular meeting, Carlisle Reservation Visitors Center. Members' photos and videos of the Solar Eclipse.
 - Saturday, September 9, 10 a.m.-3 p.m.: Adventure Fest, Mill Hollow Reservation (solar observing if weather permits)
 - Thursday, September 14, 7 p.m.: Board meeting, Blue Sky Restaurant, Amherst
 - Friday, September 15, 9-11 p.m.: Public observing, Nielsen Observatory (note: no cloud backup date on 9/16)
 - Saturday, September 16, 5 p.m. - ?: CAA OTAA, Letha House
 - Saturday, September 23, 4:30 p.m. - ?: BRAS OTAA, Birmingham United Methodist Church (click [here](#) for map). Bring \$5/head, a dish to pass, and your own sporks, bibs, and NA beverages. Coffee, water, hot dogs, condiments and buns will be provided.
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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.

BOARD SUMMARY August 10, 2017

The meeting of the Board of Directors of the Black River Astronomical Society convened at 7:09 p.m. with 8 Directors present. Minutes of the July meeting were read and approved as was the Treasurer's report. Committee reports came next with the *Guidescope* editor, Bill Ruth, reporting that all was well. The Website chairman, Lee Lumpkin, reported that he had removed the notation about the change of meeting venue information as it was now out of date, and has started up the ephemeris again. He has also added the instructions on tightening the focus adjustment on the club's Lunt hydrogen alpha telescope to the site. Instrumentation came next with John Reising reporting on the refurbishment of the club 13" Odyssey telescope. The tube donated by Diane Lucas (many thanks, Diane!) is 6' long and 16" in diameter. We can make this work and John now has a way to mount the mirror so that it doesn't have to be removed and reinstalled each time the telescope is used as was previously necessary. John will work on the 13" as he continues to prepare the new 16" for use. The OTAA Chairman reported that the OTAA convention dates are as follows:

MVAS	Saturday Aug. 12
CAA	Saturday Sept. 16
BRAS	Saturday Sept. 23

The Metro Parks Liaison reports he has tried to email the facilities director at Carlisle but has had no reply, so he will try to telephone next week.

Programming is as follows:

September	Member Eclipse Photos
October	Annual Meeting of the Members and Elections
November	OPEN
December	Annual Holiday Pot Luck/Party at Amherst Beaver Creek
Jan-March	OPEN

April Tentative--Rob Owen
May John Reising on Mars prior to opposition
June-November OPEN

Old Business came next with the first item a discussion of the upcoming Adventure Fest held by the Metro Parks at Mill Hollow on Saturday, Sept 9th from 10:00-3:00 p.m. We discussed participation because this event would be our third in three straight weekends, but enough people were willing to commit to attend, that we decided to participate. Those offering to participate were Greg Zmina, Tim Kreja, Steve Schauer and we hope, Jim Cunningham and Jeff Walsh. Schauer will so inform the Metro Parks.

The second item of Old Business was publishing the annual club roster. We have been slow on this because of the number of club activities, eclipse planning and the absence of Lee Lumpkin due to a family emergency. Dan Walker will work on preparing a roster to disseminate to members after the eclipse is over.

The third item was a final vote on the size and location of the storage building we are hoping to build at the Nielsen to house the new 16" Newtonian telescope that will not fit through the door of the current building. This new building will also house the telescopes that currently clutter the perimeter walls of the Nielsen as well as the three telescopes currently stored at the John Reising Home for Wayward Telescopes. After brief discussion, the board voted to build a building 10 feet wide by 16 feet long with 6 foot sidewalls. It will be placed on the west side of the observatory, between the concrete pad and the access road. We will offer to pay for the construction of such a building and will ask the LCMP for a concrete pad on which to place the building and for electricity in the building for red lights, white lights and outlets.

Some time ago, Len Jezior contacted the Board in regard to some videos he found on YouTube. The site is called Astrum, and the videos, which average about 10 minutes, are really very good. Len is suggesting that we show a video at each General Meeting. After discussion, the Board doesn't want to use them at every meeting, but does want to use them for programs and at meetings where the normal program might run short. Another time Astrum might be perfect is during elections while the Board is meeting separately to elect officers. We thank Len for such a good find!

The next item of Old Business was planning for our OTAA Convention on September 23rd. Since we only have one more Board meeting prior to the event, planning needed to be advanced. Assignments are as follows:

Tim K. hot dogs and grills/charcoal
Mickey H. hot dog buns and condiments
Greg Z. ice, bottled water and coolers

Jim C. table settings, power strips and extension cords

Tim K. Program: The history of the refractor

Greg Z/Jeff W Door Prizes

Dan W. Cash box, tickets, change

John R. Dawn Patrol

The final item of Old Business was a vote to make Swen Nielsen a Patron member of the BRAS and as such offer him membership for life. For several years, Swen has been one of the club's most ardent supporters and recently put us in touch with the woman who donated the 16" Newtonian to the club and a dome-type observatory for Greg Cox who is donating it to his church. For his many contributions to the club we are delighted to give Swen Patron membership!

There were only a few items of New Business. First was the happy task of voting to accept the membership application of Bob Lemart who is a friend of Greg Zmina. Welcome Bob! We also had an application for membership from Raphael Hernandez who made the request through the Night Sky Network. Dan Walker will reply and ask for an actual BRAS membership form to be filled out. Raphael lives in Lorain, worked at the steel mill, and has previously been a member.

There was brief planning for the eclipse watch party we are co-sponsoring with the LCMP at the Burrell Homestead on the 21st. Sadly, we are unable to get any additional help for the event with Jeff Walsh, Jim Cunningham and Mike Murray as our only workers. Since Jeff is still away, Schauer will get the club's Lunt and mount, the club handouts and solar glasses, and a portable table to Jeff upon his return.

Dates were set, and the meeting was adjourned.

~Steve Schaeer

HAVE YOU EVER WANTED TO SERVE AS A MEMBER OF THE *BOARD OF DIRECTORS?*

If so, three board positions are up for re-election at the October regular meeting. One of the positions will be vacant. If you would be interested in running for a 3-year term on the Board, or know someone you would like to nominate, please let [Greg Zmina](#) know at the next regular meeting or via email.

E21

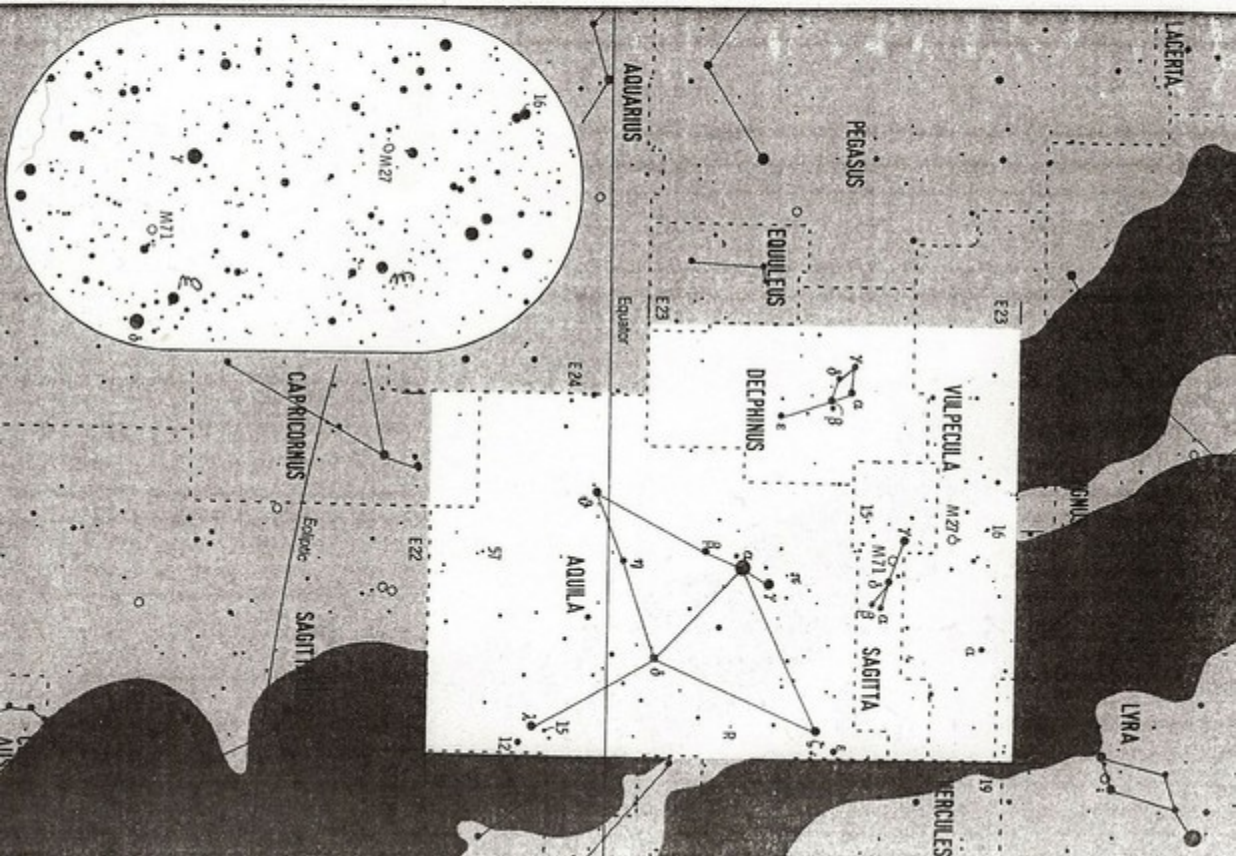
Equator, Ecliptic — Summer Constellations

NEBULA Position V-Mag. Size Shape Type Vis. Dist. R.A. Dec.
 6838 M71 Sge 84 12/0' 5" O IX GC 2 13000ly 19 53.8 18 78
 6853 M27 Vul 7 10 7 0 A PN 3 1000 19 50.6 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 59.6	15.07
12	Aql	4.0	1.1	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	0			125	19 06.2	-4.88
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			460	19 40.1	18.01
6 β	Sge	4.4	1.0	-1		Sep. 35'	460	19 41.0	17.48
50 γ	Aql	4.4	1.0	-1		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	0		500	19 48.7	11.82
53 α	Aql	0.8	0.2	2		Alhair, Atair	16.7	19 50.8	8.87
55 η	Aql	3.5-4.4	0.7	-5			1400	19 52.5	1.01
57 η	Aql	5.3	* -1	0			350	19 54.6	-8.23
60 β	Aql	3.7	0.9	1	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	0		220	20 02.0	24.94
15	Sge	5.4	0.5	1	0		58, 600	20 04.1	17.08
65 θ	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			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	0		105	20 46.7	16.12

BINARY	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.	VARIABLE	STAR
15	Aql	5.4	7.0	1.1	1.5	39°	3	R Aql	280 d
52	π	6.3	6.8	0.8	0.1	1.4	3	Period	≈ 280 d
57	η	5.7	6.5	-1	0.0	35.7	3	Max.	≈ 2451285
16	Vul	5.8	6.2	0.3	0.4	0.9	3	55 η Aql	7.1767 d
15	Sge	5.8	6.9	0.6	0.1	215	3	Period	7.1767 d
12	γ	4.3	5.1	1.0	0.5	110 9.2	3	Max.	2451206.0
92	ε Sge	5.5-9.0	0.2	0.2	2015	8.9	3	Min.	Max +4.0



(thanks to John Reising)

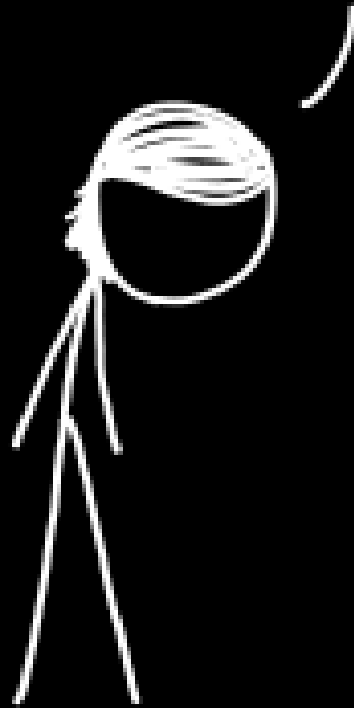
Deep-Sky Objects for September

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.

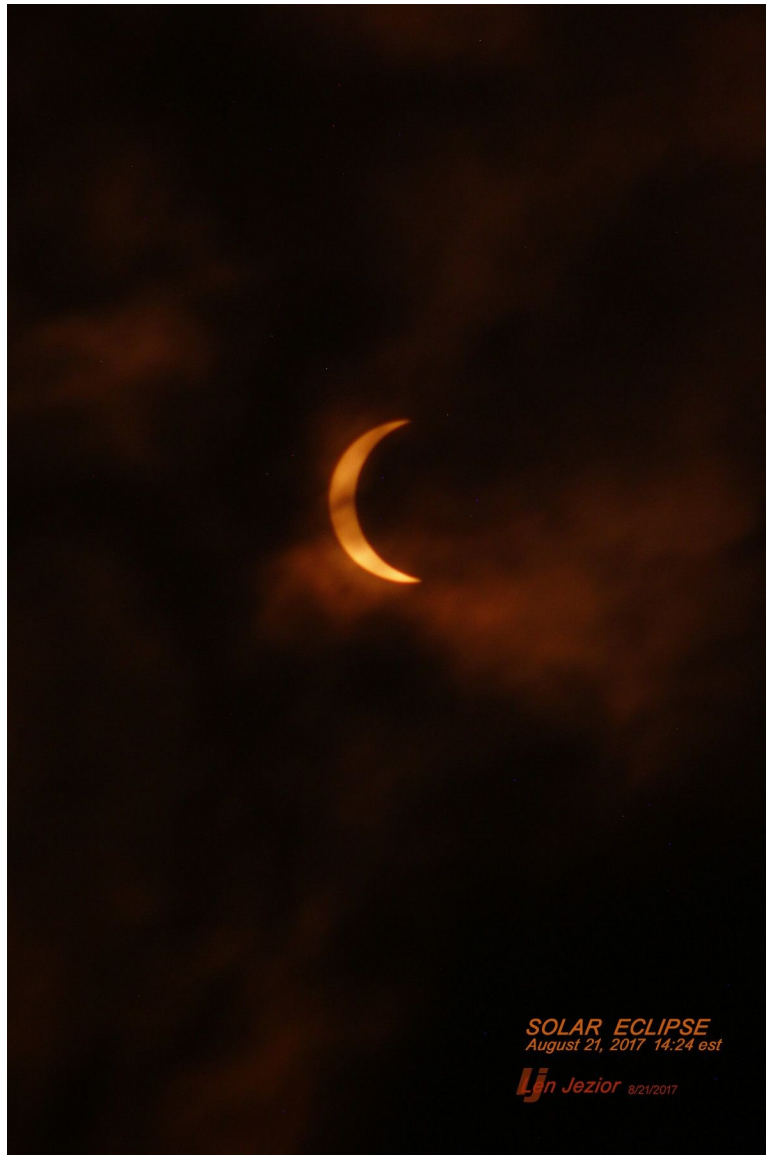
(thanks to Len Jezior)

BASED ON THIS DECREASE
IN THE STAR'S BRIGHTNESS,
I BELIEVE IT IS ORBITED
BY AT LEAST ONE PLANET.



EXOPLANET ASTRONOMERS
AT NIGHT

(thanks to Lee Lumpkin. This work is licensed under a [Creative Commons Attribution-NonCommercial 2.5 License](https://creativecommons.org/licenses/by-nc/2.5/). Permanent link to this comic: <https://xkcd.com/1371/>)



ECLIPSE-ORAMA NIGHT

Please feel free to bring your images and videos of the Solar Eclipse of 2017 to the September 6 meeting at the Carlisle Visitors Center. You can bring prints to display, or flash drives with the images or videos for projection at the meeting.