

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio

September 2018

Website: blackriverastro.org

Newsletter submissions: [Editor](#)

* * * * *

--Wednesday, September 5, 7 p.m.: Regular meeting, at Oberlin College
Peters Hall Observatory/Planetarium (campus map on next to last
page)

--Saturday, September 8, 5 p.m. - ?: BRAS OTAA, Birmingham United
Methodist Church Hall (concurrent CAA OTAA at Letha House Park)

--Thursday, September 13, 7 p.m.: Board meeting, Blue Sky Restaurant,
Amherst, OH

--Friday, September 14, 9-11 p.m.: Public observing, Nielsen Observatory
(cloud backup date Saturday, September 15)

--Sunday, September 23, 1-4 p.m.: Solar observing, Sandy Ridge Reservation

* * * * *

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 them to your [humble Guidescope editor](#) for inclusion in forthcoming issues.

BRAS IS HAVING A PARTY AND YOU'RE INVITED!

The BRAS is a member of an organization called the OTAA, or the Ohio Turnpike Amateur Astronomers. As the name implies, this is a loose organization of clubs that are located somewhat near the Turnpike and occasionally share information and network to benefit all area astronomers. The OTAA was started by several people including one of our founding members George Diedrich. One of the best parts of the OTAA is that each club puts on a convention every year, to which the other clubs are invited. Our OTAA Convention is Saturday September 8th, and we hope you will attend!

We have our convention at the Birmingham United Methodist Church hall on South Street in Birmingham, Ohio. A map is available on our website, blackriverastro.org. Click on the “Calendar” tab, then click on the event. Then click on “map” when the event listing opens up. (Coming from the east of Birmingham, take 113 across the Vermilion River, turn left at the first street past the bridge, go past the entrance to Schoepfle Gardens and take Market Street—which changes to South Street—heading west until you reach the church driveway where you take another left.

Registration starts at 5:00 p.m. (\$5/person) with a pot luck dinner at 6:00 p.m. The club provides hot dogs, buns, condiments, paper plates, napkins and plastic forks, spoons and knives. We will also provide coffee, tea, hot chocolate and water. Please bring a dish to pass. Everyone who registers will get a ticket to be used in the door prize

drawing that follows dinner. There are also some high priced items that will be available as door prizes for which extra tickets can be purchased. The hall is air conditioned and has restrooms. Behind the hall is a large open field where telescopes will be set up. If the weather cooperates, people from four or five other astronomy clubs will attend and will set up scopes. This is a great opportunity to travel through the field and look through many different types of telescopes at many different objects. Please note that the convention is rain or shine. If the weather is poor, we still have dinner, distribute many door prizes and we will also have a couple of videos for people to enjoy. This site is surprisingly dark and if the weather is clear we have permission to stay as late as we wish. Often, people attending will bring objects that they wish to sell, and we provide tables for free for them to do so. We also sometimes have vendors attend with eyepieces, binoculars etc. for sale. Registration is \$5.00 which we charge in order to pay for the hall.

This is a fun event. If you are new to astronomy and want to see different types of telescopes, astronomers are a friendly bunch. Simply ask why they like their particular telescope, and they will be glad to discuss it with you. If you are a long time member, it is a chance to observe and to network with old friends from other clubs. The food is good (and free!) and the company is excellent. We really hope as many BRAS members as possible will join us! See you there!

~Steve Schauer

BOARD SUMMARY

August 9, 2018

The August meeting was called to order at 7:14 p.m. with eight Directors present. The minutes of the July meeting were read and approved as was the Treasurer's report. Under Committee reports, *Guidescope* editor Bill Ruth reported all was well and that he was getting some submissions from members which is appreciated. The Website Chairman reported that all was well. We had had a report via Facebook that our site was down one day last week, but when Schauer checked an hour later, things were functioning as normal.

Under Instrumentation, John Reising reported that he had the mirror in the 2" diagonal for the Unitron refractor resilvered, and it is back in the tailpiece and ready to go. At the previous meeting there was a question as to whether the club owned three Celestron CG-5 mounts or only two. In checking with Mike Harkey, it was decided that we owned two and both were in the observatory. The Unitron is currently on one CG-5 and it is not tracking well, even though polar alignment is pretty good. It is believed that the power supply is providing inadequate power to run the mount, so a new

power supply will be ordered. We may swap out the hand controller as the one in use is not operating well. At the last meeting, Schauer was authorized to purchase two new Telrad finders and a 4” extension base, but he has not done so yet.

The OTAA Chairman reminded members that the MVAS OTAA was Saturday Aug. 11th, and plans were made for Directors who were free, to attend. Both the CAA and BRAS OTAA conventions are on September 8th this year. While looking at dates for 2019, the Board set our OTAA date for September 28th, 2019 as the CAA OTAA will be September 21st. Thus we will not conflict with each other next year. While we were setting future dates, we looked at 2020, and set our OTAA date for that year for September 19th. Here is the list of OTAA dates as we have it so far:

2018

CAA	Sept. 8
BRAS	Sept. 8
Hidden Hollow	Oct. 5-7

2019

CVAS	TBD
MVAS	Aug. 24
CAA	Sept. 21
BRAS	Sept. 28

2020

BRAS	Sept. 19
------	----------

The Metro Parks Liaison had no report.

Programming is as follows:

September	John/ Dave	Oberlin College Planetarium—SEPTEMBER GENERAL MEETING MOVED TO PETERS HALL, OBERLIN COLLEGE
October		Annual Meeting of the Members and Board Elections plus a short video
November	Mickey/Denny	Lowell Observatory off-site facilities and Daylight Comets
December		Annual Christmas Pot Luck at the LCMP Amherst Beaver Creek Reservation
January		
February		
March		
April	Tim Kreja	The Colonization of Mars

Old Business came next with the first item of discussion being assignments for our OTAA Convention on Sept. 8th:

Hot Dogs	Tim
Buns	Mickey
Bottled Water/Ice	Greg Z.
Coolers	Greg Z./Schauer
Chips/pretzels	Mickey

Grills, charcoal, lighters Tim
Tickets, change, cash box Dan
Condiments Dan
Plates/forks, spoons, knives, napkins Greg C.

The plan is for Directors, and any members who wish to help set up, to arrive at 3:00 p.m. with registration set for 5:00 p.m. and dinner at approx. 6:00 p.m. Schauer will pick up the key to the hall a day or two prior to the event, along with the alarm code.

New Business followed. The club had been contacted by CSU Professor Jay Reynolds who hosts a program called "In the Sky" on WKYC Channel 3 several times a month. He kindly offered to come out to the observatory with a camera crew and shoot some video of the Nielsen Observatory to highlight the club and the facility on a future broadcast. The Board was enthusiastic about the idea and Schauer will contact Professor Reynolds.

Denny Bodzash contacted the club via email and suggested that we place our monthly meetings, our public star parties and our solar observing sessions into the "Things to Do" section of the Chronicle Telegram newspaper. The Board liked the idea, and Bill Ruth will investigate who to contact, how often to report our activities (weekly, monthly, etc) and will report back.

The third item was another communication from Leon Cross about more astronomy items to sell. Some Board members will travel to his house on Sept. 1st to see if we can purchase items for the club or for door prizes.

Finally came the delightful duty of voting in two new members, Ms. Diana Richardson of Grafton and Paul Kerley of North Olmsted. The vote was unanimous, and we welcome Paul, his wife and Diana to the club!

Dates were set, and the meeting was adjourned at 8:40 p.m.

~Steve Schauer

Photo of the Century - Fantastic and Historic

A few will remember it. This was Christmas Eve 1968. It is said to be the world's most famous photograph, "Earthrise." It's been on the cover of TIME and on stamps. But did you know it almost didn't happen. The site below is outstanding. It takes you right onto the module with the 3 astronauts and you hear them as they see it for the first time. A picture like this, taken by a human, is not likely to happen again even in the distant future.

[The Untold Story Of The World's Most Famous Photo](#)

(Thanks to Rich Thompson, former BRAS member now living in Florida)

Sidereal Clock App

The App Store for Android platforms (tablet/phone) now offers a free Sidereal Clock application. Set up was easy, no frills, no ads. It matched my interactive star charts within 2 min. Not bad. Oh... and did I mention it's "free". For stargazers using equatorial mounts, the app will assist in identifying and locating celestial artifacts by Right Ascension.

~Len Jezior

Europe Contemplates Eliminating Daylight Savings Time

What started as a citizens' petition in Finland to eliminate Daylight Savings Time (DST) is now a topic of debate in the European Union (EU) Parliament. This follows a trend of people all over the world questioning the need to change the clocks twice a year but this is, to date, the largest such movement.

Last year, over 70,000 Finns signed a petition urging the government to scrap DST. A government committee was formed to study the idea and came to the conclusion that the time change not only didn't save any measurable energy, but that it caused more harm than good, citing short term sleep disorders, increased risk of heart attack/stroke, and lost productivity at work.

Unfortunately for the Finns, getting rid of DST was more complicated than passing a law.

Finland is a member of the EU, which requires all members to observe the same time change dates and the same length of time shift. The Finns' actions prompted the EU Parliament to take up the debate, at which point the matter is undergoing 'thorough assessment.'

DST started with Germany and Austria-Hungary adopting a 1 hour leap forward of the clocks to help conserve coal during WWI. By the end of the conflict, all combatants had adopted the practice. However, after the armistice, DST was dropped until WWII. This time, not all the combatants stopped observing it after peace was declared, the United States was among such nations. DST gained renewed interest in the late 70s with the energy shortages, at which point many countries resurrected the time change. Finland has observed DST since 1981.

However, times are changing and the value of DST is being called into question not only in Finland, but around the world.

Leaders in Lithuania, Poland, and Sweden have also called for the ending of DST, but there has yet to be any official government action taken in these countries.

In contrast, many leaders in central and Southern European countries have expressed skepticism about the idea of eliminating DST and/or have questioned why their northerly neighbors find changing the clocks twice a year so bothersome.

Russia has taken the lead of all countries in experimenting with time changes. Many Russians also hated the time change and, in 2011, Russia went to a year long DST. However, this proved unpopular and, in 2014, Russia went back to Standard Time for the entire year.

If you think the world's approach to time changes is complicated, look at the United States.

After WWII, the U.S. never dropped DST, but there was no uniformity in how it was observed from state to state. States could choose to spring forward and fall back on whatever dates they wished and, in addition, were free to choose the length of the shift. States were also free to abstain from DST if they wished. Result: the time zone system designed to make continental travel simpler was thrown into chaos. As a result, Congress passed the Uniform Time Act in 1966, which set national days for time changes and standardized the length of the shift at 1 hour. However, it still did not require states to observe DST. Currently, two states--Arizona and Hawaii--do not observe DST. Bucking the trend of wanting to do away with DST, Indiana, a long holdout, adopted DST in 2016.

Now, come 2018, things are getting more complicated. Florida's legislature passed a bill that would guarantee more sunshine in the Sunshine State by switching Florida to permanent DST. A Massachusetts government commission recommended the state switch from Eastern Time to Atlantic Time during the period of time the rest of the country went back to Standard Time, a de facto year long DST.

Taking a humorous approach to the whole time change debate, Italian EU Parliament member Angelo Ciocca brought a huge clock to the floor when he spoke and then proceeded to wind back the clock an hour in order to illustrate the 'waste of time' the debate was causing. He then urged his fellow MPs to focus on 'real issues' instead.

Where will this debate lead? Appropriately, only time will tell.

~Denny Bodzash

FOR SALE: Meade LX-200 8 Inch Telescope

Selling my Meade LX-200 8" SCT. First off: the ELECTRONICS DO NOT WORK (hence the price). A previous owner had left this scope out in the weather and I bought with the intent of fixing it but after a year of sitting and collecting dust I've decided to sell to fund other projects. The scope does unlock and move smoothly in its mount and the optics are clean. Focus knob moves smoothly as well. You will need a finder (originally came with an 8x40) and a 1 ¼ inch thread-on star diagonal to make it usable as a push-to. Scope has a lot of paint chipping but this is purely cosmetic. Hand controller included. Asking \$300.

FOR SALE: Meade LXD-55 German Equatorial Mount

Selling my Meade LXD-55 German EQ mount. This is the predecessor of the LXD-75. Have owned for over 10 years and have used it to make great astrophotos. When polar aligned and leveled (I used shadows for polar and the mount's included bubble levels to do so), mount has no problem making 30 second images with round stars at a 900mm focal length. I have gone 5 minutes for wide angle constellation and Milky Way shots. The only bad thing about it is that the go-to doesn't work. A previous owner tried to 'hyper tune' it but wound up messing it up. He assured me that it was fixable but not being familiar with playing with software, decided to leave well enough alone. Comes with controller but you'll need to bring your own AC to DC converter. Mounting rings visible in photos will not go with mount (they're scope specific) but dovetail bar will. Asking \$250. Call 440-865-5037

anytime before 5pm (I work nights and the ringer will be off) or text anytime if I don't pick up.
~Denny Bodzash



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 Shape Type Vis. Dist. R.A. Dec.

6838 M71 Sge 8.12/6' 5" O IX GC 330,600 19 05.0 -4.03

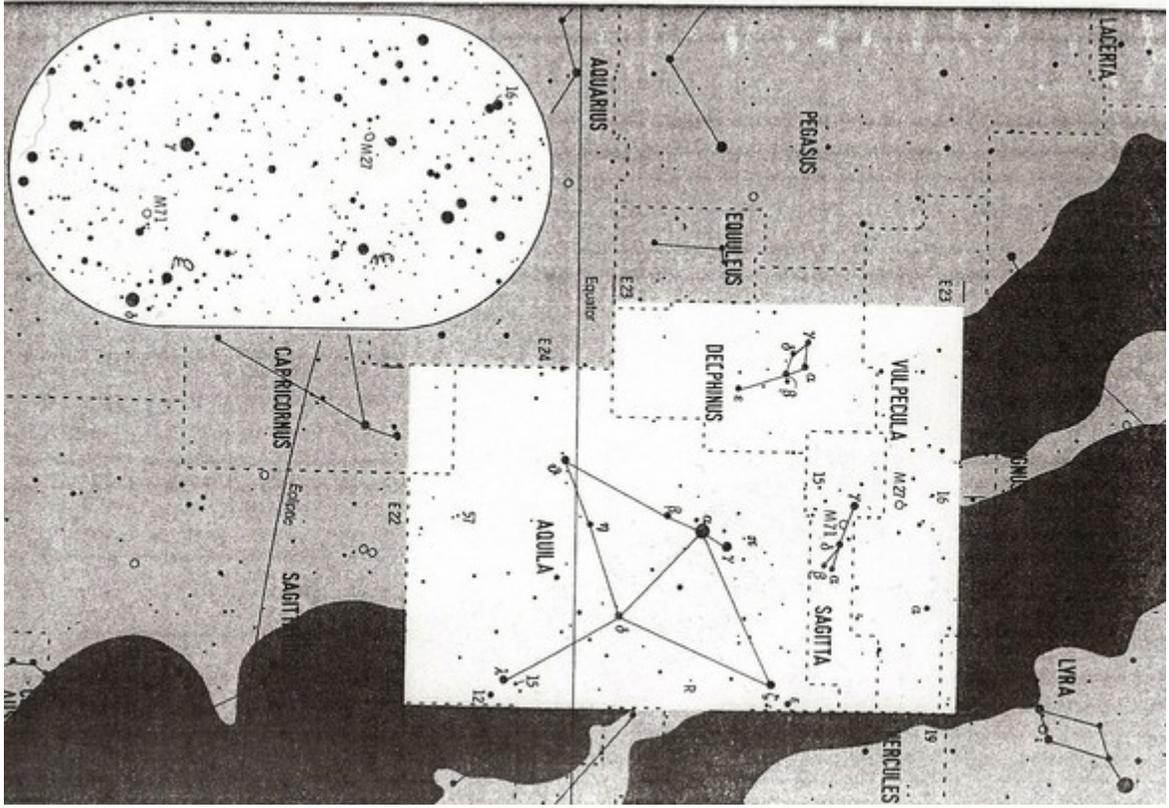
6853 M27 Vul 7 10 7 0 A PN 1000 19 59.6 22.72

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 ^x		150 ly	18 ^h 39 ^m 6 ^s	15.07
12	Aql	4.0	1.1	1	1		150	19 01.7	-5.74
15	Aql	5.2	* 1.2	0	0		330,600	19 05.0	-4.03
17 ζ	Aql	3.0	0.0	1	1		84	19 05.4	13.86
16 λ	Aql	3.4	-1.1	0	0		125	19 06.2	-4.89
R	Aql	5.8-10	1.3	1	2		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	0		300	19 28.7	24.66
5 α	Sge	4.4	1.0	1	-1	Sep. 35'	460	19 40.1	18.01
6 β	Sge	4.4	1.0	1	-1	Tarazed	500	19 46.3	10.61
50 γ	Aql	2.7	1.5	-3	-2		460	19 47.4	18.53
7 δ	Sge	3.7	1.3	0	0		500	19 48.7	11.82
52 π	Aql	5.7	* 0.5	1	2	Alhair, Atair	16.7	19 50.8	8.87
53 α	Aql	0.8	0.2	2	-5		1400	19 52.5	1.01
57 η	Aql	3.5-4.4	-1	0	0		350	19 54.6	-8.23
57	Aql	5.3	* -1	0	0	Alschain	45	19 55.3	6.41
60 β	Aql	3.7	0.9	1	3		260	19 58.8	19.49
12 γ	Sge	3.5	1.6	-1	-1		220	20 02.0	24.94
16	Vul	5.2	* 0.4	1	1		58,600	20 04.1	17.08
15	Sge	5.4	* 0.5	0	0		280	20 11.3	-0.82
65 θ	Aql	3.2	-1.1	-1	-1		350	20 33.2	11.30
2 ε	Del	4.0	-1.1	-1	-1		100	20 37.5	14.60
6 β	Del	3.6	0.4	1	1		240	20 39.6	15.91
9 α	Del	3.8	-1.1	-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	1				

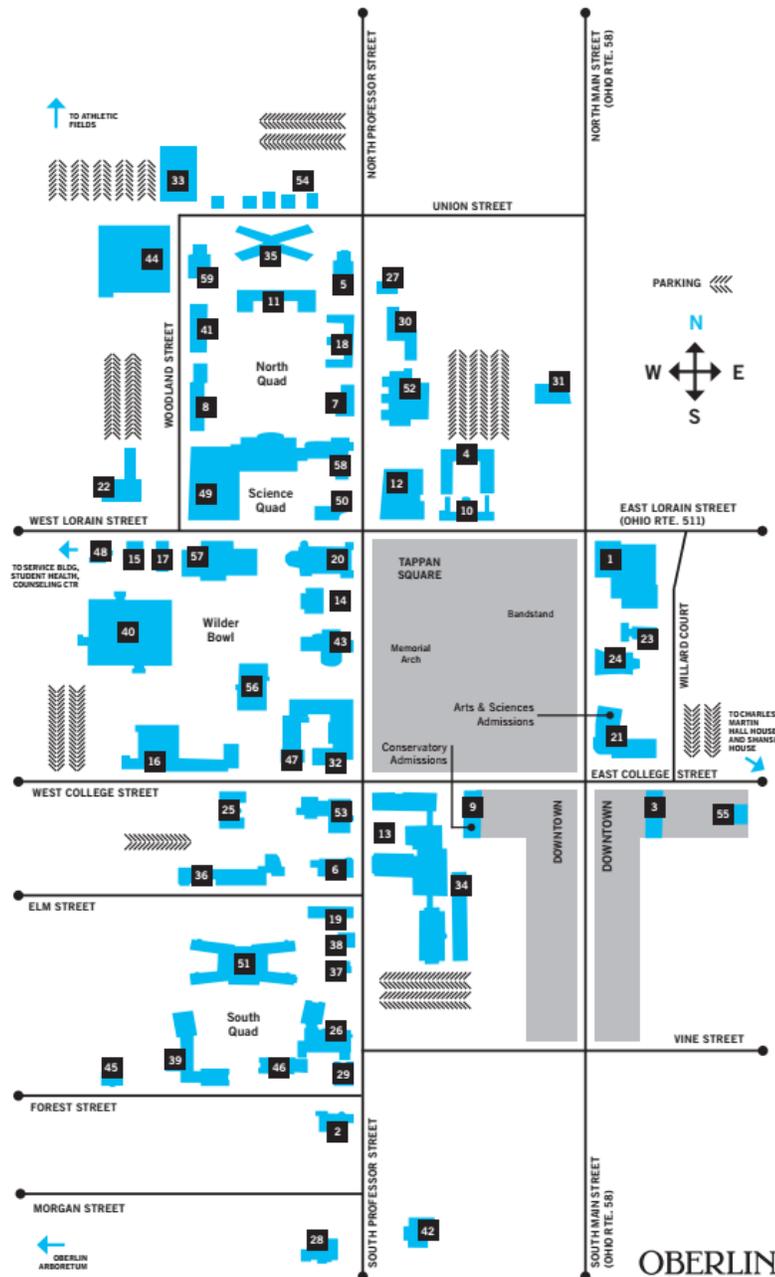
BINARY	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.	R	Aql	Period	Max.	Min.
15	Aql	5.4	7.0	1.1	1.5	4	39°	□	□	≈ 280 d	2451285	2451206.0
52	π	Aql	6.3	6.8	0.8	0.1	1.4	□	□	□	□	□
57	η	Aql	5.7	6.5	-1.0	0.0	11	35.7	□	□	□	□
16	Val	β	5.8	6.2	0.3	0.4	11	0.9	□	□	□	□
15	Sge	β	5.8	6.9	0.6	0.1	11	215	□	□	□	□
12	γ	Del	4.3	5.1	1.0	0.5	11	0	9.2	□	□	□
9 ε	Sge	β	5.5	9.0	0.2	0.2	2015	8.9	□	□	□	□
92								84	□	□	□	□



Thanks to John Reising for Constellation of the Month.

OBERLIN COLLEGE CAMPUS

- 1 Allen Memorial Art Museum and Art Building
- 2 Allencroft (Russian House)
- 3 Apollo Theatre
- 4 Asia House (Quadrangle)
- 5 Bailey (French House)
- 6 Baldwin Cottage
- 7 Barnard House
- 8 Barrows Hall
- 9 Bookstore and Con Admissions
- 10 Bosworth Hall (& Fairchild Chapel)
- 11 Burton Hall
- 12 Carnegie Building
- 13 Conservatory of Music
- 14 Cox Admin. Building
- 15 Creative Writing
- 16 Dascomb Hall
- 17 Daub House (Bonner Center)
- 18 East Hall
- 19 Fairchild House
- 20 Finney Chapel
- 21 Gateway Center, Hotel at Oberlin, Arts & Sciences Admissions
- 22 Hales (College Lanes, Cat in the Cream)
- 23 Hall Annex
- 24 Hall Auditorium
- 25 Harkness House
- 26 Harvey (Spanish House)
- 27 International House
- 28 Johnson House (Hebrew Heritage House)
- 29 Kade (German House)
- 30 Robert L. Kahn Hall
- 31 Keep Cottage
- 32 King Building
- 33 Knowlton Athletics Complex
- 34 Bertram & Judith Kohl Building
- 35 Langston Hall (North)
- 36 AJ Lewis Center & Annex (Environmental Studies)
- 37 Lewis Center (for Women and Transgender People)
- 38 Lewis House (Ombuds & Multifaiith Resource Center)
- 39 Lord-Saunders (Afrikan Heritage House)
- 40 Mudd Center (Main Library)
- 41 Noah Hall
- 42 Old Barrows
- 43 Peters Hall
- 44 Philips Phys. Ed. Center
- 45 President's House
- 46 Price (Third World House)
- 47 Rice Hall
- 48 Safety & Security
- 49 Science Center
- 50 Severance Hall
- 51 South Hall
- 52 Stevenson Hall
- 53 Talcott Hall
- 54 Union Street Housing
- 55 Ward Alumni Center
- 56 Warner Center
- 57 Wilder Hall (Student Union)
- 58 Wright Lab of Physics
- 59 Zechiel House



Peters Hall is #43. Nearby parking is available in the Rice lot next to (west of) Rice Hall, #47—it's the lot closest to the southwest entrance of Peters. Once inside, take the stairs or elevator up half-a-flight to the 1st floor and meet in the spacious, oak-paneled elegance of Klutznick Commons.



Mars, 8/8/18, from my deck with an early Perseid meteor, and (of course) an airplane. Sagittarius is to the right. The small cross-like asterism to the right of Mars is the "Territory of Dogs". 165s using the Pentax K3 ii and the Astrotrace function on a stationary tripod. Distant reflection lightning on the horizon too. ~Dave Lengyel