

Newsletter of  
The Black River Astronomical Society

# Guidescope

Lorain County, Ohio

May 2018

Website: [blackriverastro.org](http://blackriverastro.org)

Newsletter submissions: [Editor](#)

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--Wednesday, May 2, 7 p.m.: Regular meeting, Carlisle Visitors Center.  
Binocular Astronomy by Bill Ruth (bring your favorite binocs!)

--Friday, May 4, 9-11 p.m.: Public observing, Nielsen Observatory (cloud  
backup date Saturday, May 5, 9-11 p.m.)

--Thursday, May 10, 7 p.m.: Board meeting, Blue Sky Restaurant, Amherst

--Friday, May 18, 9-11 p.m.: Public observing Nielsen Observatory (cloud  
backup date Saturday, May 19, 9-11 p.m.)

--Sunday, May 20, 11 a.m. - 3 p.m.: Solar observing at Paddle and Pedal  
Festival, Lakeview Park Metropark, Lorain

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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.

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## 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 the local amateur astronomy community could relate to, please send it to your [humble Guidescope editor](#) for inclusion in forthcoming issues.

*Please note: Opinions expressed in articles are those of their authors and not necessarily those of other members of the Black River Astronomical Society.*

~Bill Ruth

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## BOARD SUMMARY      April 12, 2018

The meeting was called to order at 7:11 p.m., with six Directors present. The minutes from the March meeting were presented and approved as was the Treasurer's report. Committee Reports followed with the first being the *Guidescope* committee. There was a discussion about the number of people who have not paid their dues which came due in October, six months ago. It was decided to no longer send the *Guidescope* via snail mail to anyone whose dues are not paid, due to the fact that it is extra work and expense to send the newsletter non-electronically. Otherwise, the *Guidescope* is going well.

There was no report from the Website Committee but all is well. Under Instrumentation, Dave Lengyel has offered the club the use of a Meade 12" LX90 Schmidt Cassegrain telescope that Oberlin College is not using. This can be borrowed by us while the orange tube C-14 is sent to Celestron for cleaning and repairs. Thanks, Dave and Oberlin! As the Meade attachment bolt pattern is different from the Celestron

pattern, an adapter may be needed. The OTAA Committee reported that we have signed and returned the contract that enables us to rent the Birmingham Methodist Church Hall for our OTAA Convention in September. Since we are non-profit, the church is kind enough to “rent” us the hall for free. As a thank you, we sent a \$100 donation which was authorized by the Board unanimously. The Treasurer, Dan Walker, will send the check. The Metro Parks Liaison had no report.

Programming is set for the year with only November open. If any club member would like to do a talk for the November meeting, please let one of the officers or Board members know. The programs are as follows:

May	Bill Ruth	Binocular Astronomy
June	John Reising	Mars
July	Mickey Hasbrook	Lowell Observatory
August	Denny Bodzash	Solar Superstorms, EMP Attacks and Hardening the Grid
Sept.	Dave/John	Planetarium show at Oberlin College Planetarium
October	Elections and Annual Meeting of the Members with a short video	
November	OPEN	
December	Annual Christmas party and pot luck dinner at the Metro Parks Beaver Creek Reservation in Amherst.	

Old Business came next. The first item was a report by Schauer on the Miami Valley Astronomical Society Apollo Rendezvous. This is the MVAS’ 100<sup>th</sup> anniversary (!) and the 48<sup>th</sup> annual Apollo Rendezvous. They will start the day at 1:00 p.m. with several speakers at the Boonshaft Museum of Discovery (near Dayton). Then there will be a star party at John Bryan State Park. To celebrate there will be an extra cost barbecue dinner before the star party. People interested should check the MVAS website: [mvas.org](http://mvas.org). The date is Saturday June 9<sup>th</sup>. Sadly this is the same date as the Chagrin Valley Astronomical Society OTAA Convention, so people may have to decide which one to attend.

The second item of Old Business was a discussion of two club events coming up in May. The first of these is an LCMP Scavenger Hunt that we have agreed to help with. From 11:30-12:30 on Saturday May 12<sup>th</sup>, we will open the Nielsen Observatory so people participating can stop by and do solar observing as part of their “hunt”. As this event is rain or shine, if the weather doesn't cooperate we will do an activity inside using either the One Meter Sun or the Magnetic Sun toolkits that we received from the Night

Sky Network. Schauer and Walker are committed to attend with Zmina and Hasbrook as probable. One or two more people to help out would be appreciated. You would need to arrive at the Nielsen at 11:00 a.m. on May 12<sup>th</sup>. The other May event is our participation in the LCMP Paddle and Pedal Festival at Lakeview Park in Lorain on Sunday May 20<sup>th</sup> from 11:00-3:00 p.m. We will do solar observing and hand out club materials. If it is clear, everyone with a solar filtered telescope is invited to help. We could also use people to help pass out club materials. If it is raining or cloudy, we will be inside and will only need a couple of folks to pass out information.

The last item of Old Business was a reminder that we also have an event in June which is our participation in the World Wide Solstice Festival. This is an international event that revolves around (pun intended) solar viewing and disseminating information about the Sun, global warming, etc. This year we will hold this event at Sandy Ridge from 1:00-4:00 p.m. on Sunday June 24<sup>th</sup>. All members are invited to attend. If you have a solar scope, please bring it along as we hope to have a crowd.

New Business came next with Schauer mentioning that a new observatory park is opening in Ohio. This will be the John Glenn Observatory Park and it will be part of the Hocking Hills Star Park complex in southern Ohio near Athens. The area is called the darkest in Ohio and will open on June 21<sup>st</sup>. Details are sketchy as the website is still being developed, but there will be a circular “Solar Plaza” and a building with “two large telescopes”. No details are currently given on the type or size of these telescopes, but one is described as being for astrophotography and the other is for the public to use. More info will be available as they get closer to their opening date and the website gets finished.

Last, just for fun, information was given out about the total solar eclipse on April 8, 2024. This eclipse will start in Texas and travel directly over Ohio. Sadly, the date, April 8<sup>th</sup>, suggests that there is a strong chance of cloudy or rainy weather. The President gave out maps of the eclipse path, and of the path over northern Ohio, just to get people thinking, although the event is obviously 6 years away.

Dates for May were set, and the meeting was adjourned at 8:26 p.m.

~Steve Schauer

## Deep-Sky Objects for May

Objects for Binoculars							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
12 <sup>h</sup> 30.0 <sup>m</sup>	+51° 32'	7 CVn	6.2, 10.4, 9.0	AB 109°, AC 229°	AC 172°, AB 327°	CVn	Triple Star
13 <sup>h</sup> 15.8 <sup>m</sup>	+42° 02'	M63	8.6v	13.5'x8.3'		CVn	"Sunflower" Galaxy
13 <sup>h</sup> 23.9 <sup>m</sup>	+54° 54'	79 & 80 UMa	2.3, 4.0	708.7"	71°	Uma	Double Star, "Mizar & Alcor"
13 <sup>h</sup> 29.9 <sup>m</sup>	+47° 12'	M51	8.4v	8.2'x6.9'		CVn	"Whirlpool Galaxy"
13 <sup>h</sup> 42.2 <sup>m</sup>	+28° 23'	M3	5.9v	16.2'		CVn	Globular Cluster
Objects for Small Telescopes (2-6 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
12 <sup>h</sup> 17.5 <sup>m</sup>	+37° 49'	NGC 4244	10.4v	17.0'x2.2'		CVn	Galaxy
12 <sup>h</sup> 19.0 <sup>m</sup>	+47° 18'	M106	8.4v	20.0'x8.4'		CVn	Galaxy
12 <sup>h</sup> 56.0 <sup>m</sup>	+38° 19'	12-Alp a	2.9, 5.5	19.4"	229°	CVn	Double Star, "Cor Caroli"
13 <sup>h</sup> 12.9 <sup>m</sup>	+18° 10'	M53	7.5v	12.6'		Com	Globular Cluster
13 <sup>h</sup> 23.9 <sup>m</sup>	+54° 56'	79 Zeta	2.4, 3.9	14.4	150°	Uma	Double Star
Objects for Medium Telescopes (8-14 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
10 <sup>h</sup> 19.9 <sup>m</sup>	+45° 33'	NGC 3198	10.3v	9.2'x3.5'		UMa	Galaxy
11 <sup>h</sup> 11.5 <sup>m</sup>	+55° 40'	NGC 3556	10.0v	8.1'x2.1'		UMa	Galaxy
11 <sup>h</sup> 57.6 <sup>m</sup>	+53° 23'	M109	9.8v	7.6'x4.3'		UMa	Galaxy
12 <sup>h</sup> 13.8 <sup>m</sup>	+14° 54'	M98	10.1v	9.1'x2.1'		Com	Galaxy
12 <sup>h</sup> 22.9 <sup>m</sup>	+15° 47'	M100	9.3v	6.2'x5.3'		Com	Galaxy
12 <sup>h</sup> 25.1 <sup>m</sup>	+12° 53'	M84	9.1v	5.1'x4.1'		Vir	"Galaxy, with N4388, N4387"
12 <sup>h</sup> 26.2 <sup>m</sup>	+12° 57'	M86	8.9v	12.0'x9.3'		Vir	"Galaxy, with N4388, N4387"
Objects for Larger Telescopes (16-inch & larger) Challenge Objects							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
10 <sup>h</sup> 18.3 <sup>m</sup>	+41° 25'	NGC 3184	9.8v	7.8'x7.2'		UMa	Galaxy
11 <sup>h</sup> 14.8 <sup>m</sup>	+55° 01'	M97	9.9v	194"		Uma	Planetary Nebula "Owl"
11 <sup>h</sup> 18.8 <sup>m</sup>	+14° 25'	M99	9.9v	4.6'x4.3'		Com	Galaxy
12 <sup>h</sup> 36.3 <sup>m</sup>	+25° 59'	NGC 4565	9.6v	14.0'x1.8'		Com	Galaxy
12 <sup>h</sup> 36.6 <sup>m</sup>	+11° 14'	NGC4567-68	10.8, 11.3	4.7'x2.2'		Vir	Galaxies, "Siamee Twins"
12 <sup>h</sup> 40.0 <sup>m</sup>	-11° 37'	M104	8.0v	7.1'x4.4'		Vir	"Sombrero Galaxy"
12 <sup>h</sup> 56.7 <sup>m</sup>	+21° 41'	M64	8.5v	9.2'x4.6'		Com	"Black Eye Galaxy"
14 <sup>h</sup> 03.2 <sup>m</sup>	+54° 21'	M101	7.9v	26.0'x26.0'		UMa	Galaxy

Print and use the Deep-Sky Interest Group - Observation Form to record your observations.

May Deep Sky Object chart courtesy of Len Jezior.

# F12 Equator, Ecliptic Spring Constellations

NEBULA Position V-Mag. Size Shape Type Vis. Dist. R.A. Dec.

4361	CV	108	11/12	1.2	0	D	PN	1	4000ly	12 24.5	-18 7.9
4090	ME8	8	13	10	0	X	GC	2	30000	12 59.5	-26 7.4
4504	M104	Vir	84	12	8	1	SA	GLX	50 M	12 40.0	-11.02
4697	Vir	91	11	2.5	0	E6	GLX	60 M	12 48.6	-5.80	

V1361 ..... Faint planetary, requires high power; the central star is only mag. 13.  
 V1590 M68 Resolved only in a telescope, but then even in the very center, binoculars, impressive in a telescope, dust lane nearly right through the center, small double core; a chain of stars lies 25 to the west.  
 V1591 M104 Sombrero Galaxy, very elongated, spindle shape barely visible in binoculars, impressive in a telescope, dust lane nearly right through the center, small double core; a chain of stars lies 25 to the west.  
 4697 ..... Small, elongated, contains a stellar nucleus, otherwise featureless.

STAR	Position	V-Mag.	B-V	Te.	Abs.	Name	Dist.	R.A.	Dec.
7 α	Cr	4.1	1.1	0	0	Alkes	180ly	10 59.8	-18 30
11 β	Cr	4.0	0.0	1	0		290	11 11.7	-22 83
12 δ	Cr	3.6	1.1	1	2		200	11 19.3	-14 78
15 γ	Cr	4.1	0.2	1	2		84	11 24.9	-17 68
84 γ	Leo	4.9	0.9	2	2		600,1000	11 27.9	2 85
N	Hrs	4.9	0.5	1	3		87	11 32.3	-20 26
3 α	Hya	5.5	0.9	1	1		180	11 33.0	-51 86
3 β	Vir	4.0	1.5	0	1		300	11 45.9	6 53
5 β	Vir	3.6	0.5	0	3	Zawislaw	35.5	11 50.7	1 76
1 α	Hya	4.3	0.5	1	3		900	11 52.9	-34 91
1 α	Cr	4.0	0.3	1	3	Alchiba	40	12 08.4	-24 73
2 ε	Cr	3.0	1.3	0	2	Gemah	165	12 10.1	-22 62
4 γ	Cr	2.6	-1	-1	1	Gemah	310	12 15.8	17 54
15 β	Vir	3.0	0.0	0	-1	Zanah	200	12 19.9	-0 67
7 δ	Cr	2.9	0.0	1	1	Alcorab	88	12 29.9	-16 52
9 β	Cr	2.7	0.9	1	1		140	12 34.4	-23 40
26 X	Vir	4.6	1.2	0	0		310	12 39.2	8 00
29 γ	Vir	2.7	0.4	2	2	Portina	39	12 41.7	-1 48
46 γ	Hya	3.0	0.9	1	0		132	13 18.9	-23 17
H	Hya	4.9	9.0	1.6	-2		600	13 29.7	-23 28

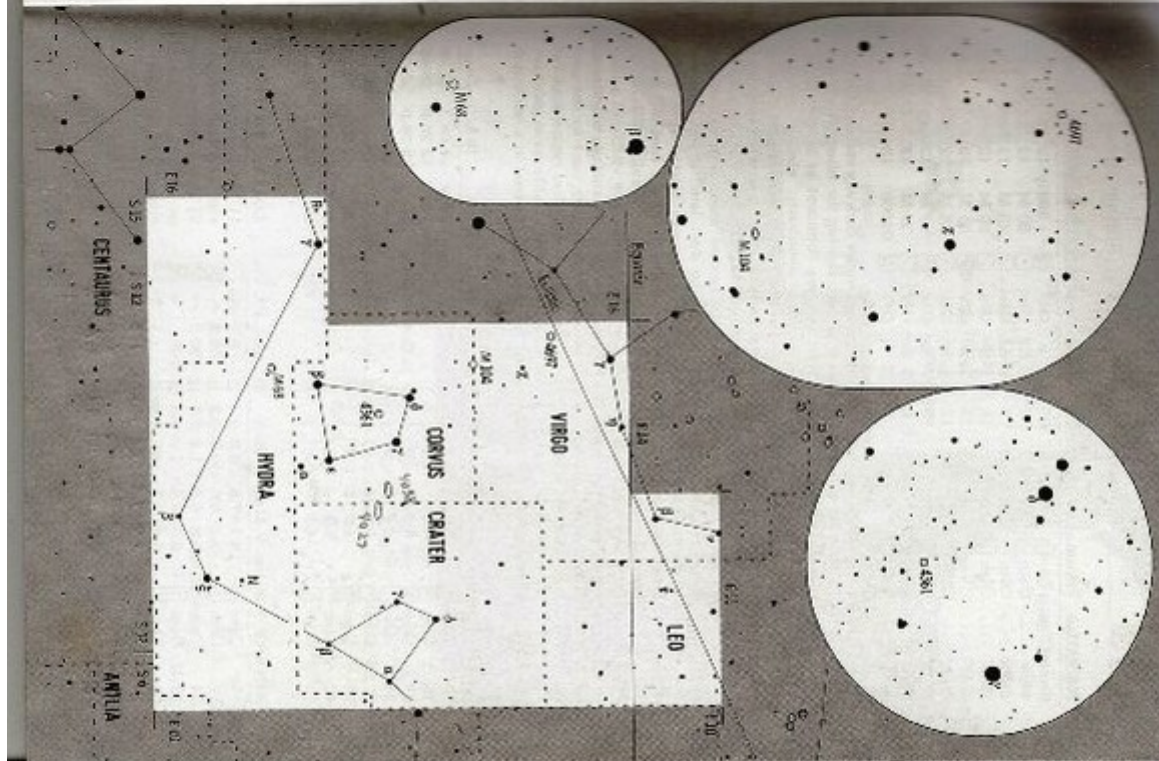
BINARY Position V-Mag. B-V Te. Sep. PA Vis.

84 γ	Leo	5.0	7.5	1.0	0.4	1	89	0	0
N	Hrs	5.0	5.8	0.5	0.5	1	9.5	0	0
29 γ	Vir	3.3	3.5	0.4	0.4	1	1.6	0	0



VARIABLE STAR  
 R. Hys  Period  Max.  Min.  Extrema  The period has been decreasing! it was close to 500 days during the early 1700s.

74 Δ CORV 3-8 1/2 A0 DK2 241 21M  
 V CORA 4-9 A7 A1 5.2 96



Constellation of the Month courtesy of John Reising.



Venus, the Hyades and the Pleiades 4/26/18, 39s, using the Pentax K3ii and Astrotracer function. ~Dave Lengyel

## Remembering Art Bell and His Courage to Ask the Big Questions

Art Bell, founder and original host of the overnight alternative talk radio show *Coast to Coast AM*, died Friday, April 13, at his Pahrump, Nevada home at the age of 72. For a newsletter that deals with hard science, it may seem an odd place to pay tribute to a radio host whose show often dealt with the paranormal and other fringe topics.

It is not. Why? Art Bell dared to openly ask the big questions about unusual topics before anyone else did so in such a public forum. It is this, the courage to ask the big questions with no concern about prevailing public perception, that drives knowledge.

If no one dared to ask the 'whys,' challenge prevailing opinion, and do this without fear, we would probably still be living in caves as hunter-gatherers with no idea as to how or why the world works. The ability to ask questions and challenge current ways of thought are at the heart of science, which has built the advanced world we live in today.

In the past, the public was often scandalized by science and the ideas it put forth. In the 1600s, Europe was outraged at the ideas of Copernicus and Galileo. The Earth not at the center of all creation and that it was a planet just like the other 5 then known? Heresy! Both men's writings were banned in many European nations and Galileo was tried before the Inquisition for teaching, without apology, this idea. Galileo was eventually sentenced to house arrest for the remainder of his life. Bad as that was, it was far better than the fate that befell Giordano Bruno, who was burned at the stake for teaching, among other things, that there were other planets orbiting other stars. Now, 400 years later, we know that all of these then-heretical ideas are correct.

The world went through a similar outrage in the 1800s with the rise of geology and biology. The notion that the world is not 6,000 years old and that all current forms of life are the products of evolution by natural selection were scandalous when they were first put forth. Charles Darwin, in particular, was savaged by his contemporaries in publication. At least he didn't have to worry about being burned at the stake. Now, over 150 years after he first published his scandalous, outrageous, insulting to God theory, we know that, with almost complete certainty, that he was correct.

These are just but a few of the great advances in knowledge brought about by brave men who dared to ask controversial questions irregardless of prevailing public opinion. There are countless many more examples throughout history, which brings us back to Art Bell.

Like these great scientists of the past, Art Bell dared to ask the big questions regardless of public opinion. Fortunately, in the enlightened world of today, the worst Bell could get were snickers or people simply changing the radio station. In the Western world, censorship and death for speaking one's mind have rightly been consigned to history.

Yes, many of the topics explored by Bell during his years ruling the overnight airwaves--ghosts, UFOs, alien abduction, demonic possession, prophecy, conspiracies, ESP, life after death, and the like--would not be considered scientific and are avoided like the plague by most career scientists. However,



they are legitimate questions about unknown phenomena and deserve to be asked even if they can't be tested in a lab, at least yet.

A big reason that many scientists don't tread near these topics is peer ridicule. For people devoted to the discovery of knowledge, this is ironic because suppression of uncomfortable ideas and public ridicule of people who express interest in topics that one's colleagues deem 'weird' is not the path to knowledge.

Science should not be about dogma and conformity (leave that for politics and religion) but should be about open-mindedness. Scientists should not be afraid to speculate, but should always be clear to distinguish speculation from fact as no one can know where the next great discovery will come from. Nothing groundbreaking was ever discovered by going with the grain, which is far easier than sticking one's proverbial neck out regardless of risk, whatever that may be.

It is for this, his courage to go against public opinion and ask questions that no one else was willing to ask, that the world owes a debt of gratitude to Art Bell. Who knows when a topic he covered on the radio will shift from speculation to fact? It could happen tomorrow.

RIP Art Bell (1945-2018).

~Denny Bodzash

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### **Binocular Appreciation Meeting**

If you have binoculars you're especially happy with please consider bringing them to the May regular meeting, where the topic will be Binocular Astronomy. Thanks.

~Bill Ruth

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### **Dues Regard**

Dues to maintain membership in good standing with the Black River Astronomical Society were due last October. If you want to fully restore your membership, please remember to bring cash or check to the next meeting and see Dan Walker or another board member. Many thanks.