

Newsletter of  
The Black River Astronomical Society

# Guidescope

Lorain County, Ohio

May 2017

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

Newsletter submissions: [Editor](#)

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--Wednesday, May 3, 7 p.m.: Regular meeting, at **SANDY RIDGE RESERVATION JOHNSON WETLANDS MEETING HOUSE, 6195 Otten Road, North Ridgeville** (please note this location change!)

Program: Coins and Astronomy, by Dave Lengyel

--Friday, May 5, 10 p.m. - midnight (cloud backup May 6): Public observing, Nielsen Observatory

--Thursday, May 11, 7 p.m.: Board meeting, BOB EVANS RESTAURANT, AMHERST (note change of venue for May board meeting!)

--Sunday, May 21, 11 a.m.- 3 p.m.: Solar observing, Lakeview Park, at Paddle and Pedal Festival

--Friday, May 26, 10 p.m. - midnight (cloud backup May 27): Public observing, Nielsen Observatory

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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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## BOARD SUMMARY APRIL 13, 2017

The meeting was called to order at 7:00 p.m. at the Blue Sky Restaurant with 10 Directors present. The minutes from the March meeting were read and approved as was the Treasurer's report. Committee reports followed with the Guidescope and website chairs reporting that all was status quo. Under Instrumentation, John Reising reported that the 6" f22 Mak that was donated by Diane Lucas is ready to go and just needs to be transported to the Nielsen. Tim Kreja reminded the Board that it was about time for an observatory clean-up day, and we set Sunday April 23<sup>rd</sup> to do so. There were no reports from the OTAA or the Metro Parks Liaison chairs. Programming is set as follows:

May	Tim Kreja	The History of the Refracting Telescope
June	Dan Walker	Motions: Guideposts of the Cosmos
July	Denny Bodzash	Major Historical Discoveries
August	OPEN	
September	Group	Total Solar Eclipse Photos
October	Board	Video and Board of Directors Elections
November	OPEN	
December	ALL	Annual Holiday Party at LCMP Beaver Creek Reservation

Next on the agenda was Old Business. First, Lee Lumpkin reported on the status of the Wellington Night Hike that we had agreed to help with, by providing telescopes for the enjoyment of the hikers. This sadly was clouded out.

The second item was a reminder that we are participating in the Metro Parks Paddle and Pedal Festival. This event is being held at Lakeview Park on May 21<sup>st</sup> from 11:00-3:00 p.m. and is an event to promote urban bicycling and kayaking. We will be doing solar observing and members are invited to help out. We need anyone with a solar scope to join us and people to help out with the public will also be welcome. We will do the "Our Magnetic Sun" interactive display and will hand out club information. Jeff Walsh, Mickey Hasbrook, Dan Walker, Greg Zmina, Tim Kreja and Steve Schauer have volunteered to attend. All others are welcome.

The third item of old business was a reminder that the Avon Lake Rec. Dept. Day Camp will be bringing students to the observatory on the summer solstice, Wednesday June 21<sup>st</sup> from 10:00-11:30 a.m. The kids will be broken into three groups. One group will be outside the Nielsen on the east side learning about what the solstice is. One group will be inside the building getting a tour of the observatory and being offered a chance to look through the 14” telescopes (probably at a tree etc). The third group will be outside on the west side of the building doing some solar observing. Any members interested in helping out would be welcome. So far, Jeff Walsh, Dan Walker, Dave Lengyel, and Steve Schauer have volunteered to help.

The final item of old business was continuing discussion about how to house the recently donated 16” Newtonian telescope that is presently undergoing repairs at the John Reising Home for Wayward Telescopes. We will need a separate building to house this telescope as it is too wide to fit through the doors of the current building and there isn't room to use it inside. We would like a new building placed on the west side of the current building. We are proposing to build a mini-barn of approx. 10'X12' with electricity inside for both white and red lights and a couple of electrical outlets. We will offer to pay for the building and ask the Metro Parks to donate the concrete pad. If the LCMP would prefer a wood covered concrete block building like the Nielsen, the Board authorized President Schauer to offer \$2,500 toward the construction. Schauer and Lee Lumpkin will set up a meeting with the Metro Parks some time in May or early June.

There were only two items of New Business. The first was a brief discussion of moving our monthly Board of Directors meetings from the Blue Sky Restaurant to the Bob Evans right across the street. It was decided to have the May meeting at Bob Evans to see if the Board has a preference. The second item of discussion centered around a 10” telescope that Greg Zmina has for sale. It was proposed that the Board buy the telescope from Greg and use it as an extra-ticket door prize at our OTAA convention in September. It was decided that the price was too high for it to be a successful fund raiser as we were unlikely to sell enough tickets to make a profit, especially if poor weather reduced the attendance. Greg will offer this scope for sale to BRAS members.

Dates were set as follows:

General Meeting	Wed.	May 3	7:00	Sandy Ridge
Board Meeting	Thurs.	May 11	7:00	Bob Evans, Amherst
Public Observing	Fri./Sat.	May 5/6	10:00-midnight	Nielsen
Public Observing	Fri./Sat.	May 26/27	10:00-midnight	Nielsen
Paddle and Pedal Festival	Sun.	May 21	11:00-3:00 p.m.	Lakeview Park

There being no additional business before the Board, the meeting was adjourned at 8:31 p.m.

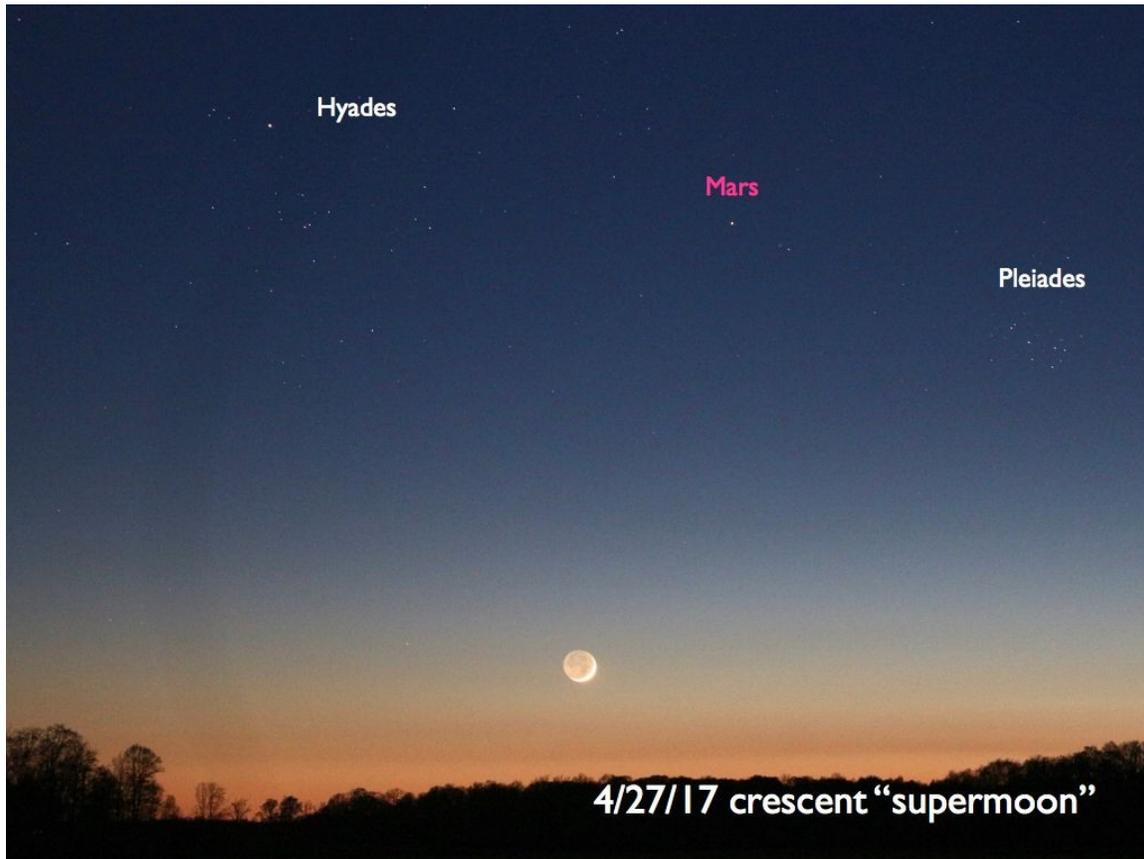
~Steve Schauer

## FOR SALE: Dobsonian Telescope (NIB)

ORION SkyQuest XT8 Classic Cat.# 8945 8" Dobsonian, new in original box, large side Bearings for a Dob setup, no base or rings included. OTA only, includes manual and Starry Night software. 1200mm F.L., 203 mm primary mirror diameter, focal ratio f/5.9, Crayford focuser accepts 2" and 1.25" E.P.'s. Tube weight 20.3 lbs., Tube Length 46.5".  
PRICE \$245.00.

Contact information: Greg Zmina. home # 440-355-4570, or see me at any BRAS meeting.

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Yesterday's waxing crescent Moon was a perigee Moon or "supermoon". This happens each month. It made a nice scene in the western sky around 9:30 p.m. yesterday. Also visible is the Hyades cluster in Taurus and the Pleiades cluster, also in Taurus, as well as Mars, which is still hanging on.

~Dave Lengyel



Close-up of perigee Moon 4/27/17 ~Dave Lengyel



I updated my equipment recently with my purchase of the new 2000000X Barlow lens. Here's an example of how it shows detail on the comet currently seen in our northern skies. ~Dave Lengyel

## 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.

(Thanks to Len Jezior for DSO charts.)

# Constellation of the Month

## E12 Equator, Ecliptic Spring Constellations

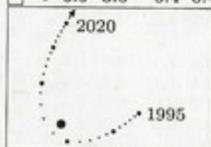
NEBULA	Position	v-Mag.	Size	Shape	Type	Vis.	Dist.	R.A.	Dec.
4361	Crv β	10½	11/17'	1.2	○ D	PN	4000ly	12 <sup>h</sup> 24.5	-18 <sup>o</sup> 30'
4590	M68 Hya	8	13	10	○ X	GC	30000	12 39.5	-26.74
4594	M104 Vir	8½	12	8	Sa	Glx	50 M	12 40.0	-11.62
4697	Vir	9½	11	2.5	∅ E6	Glx	60 M	12 48.6	-5.80

- ✓4361 ..... Faint planetary, requires high power; the central star is only mag. 13.
- ✓4590 M68 Resolved only in a telescope, but then even in the very center.
- ✓4594 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	Crt	4.1	1.1	0 <sup>+</sup>	...	Alkes	180ly	10 <sup>h</sup> 59.8	-18 <sup>o</sup> 30'
11 β	Crt	4.5	0.0	0	...		260	11 11.7	-22.83
12 δ	Crt	3.6	1.1	0	...		200	11 19.3	-14.78
15 γ	Crt	4.1	0.2	2	...		84	11 24.9	-17.68
84 τ	Leo	4.9	0.9	-2	...		600,1000	11 27.9	2.85
N	Hya	4.9	0.5	3	...		87	11 32.3	-29.26
ξ	Hya	3.5	0.9	1	...		130	11 33.0	-31.86
3 ν	Vir	4.0	1.5	-1	...		300	11 45.9	6.53
5 β	Vir	3.6	0.5	3	...	Zawijava	35.5	11 50.7	1.76
β	Hya	4.3	-1	-1	...		360	11 52.9	-33.91
1 α	Crv	4.0	0.3	3	...	Alchiba	49	12 08.4	-24.73
2 ε	Crv	3.0	1.3	-2	...		300	12 10.1	-22.62
4 γ	Crv	2.6	-1	-1	...	Gienah	165	12 15.8	-17.54
15 η	Vir	3.9	0.0	-1	...	Zaniah	260	12 19.9	-0.67
7 δ	Crv	2.9	0.0	1	...	Algorab	88	12 29.9	-16.52
9 β	Crv	2.7	0.9	-1	...		140	12 34.4	-23.40
26 χ	Vir	4.6	1.2	0	...		310	12 39.2	-8.00
29 γ	Vir	2.7	0.4	2	...	Porrima	39	12 41.7	-1.45
46 γ	Hya	3.0	0.9	0	...		132	13 18.9	-23.17
R	Hya	4.9-9.0	1.6	-2	...		800	13 29.7	-23.28

### BINARY

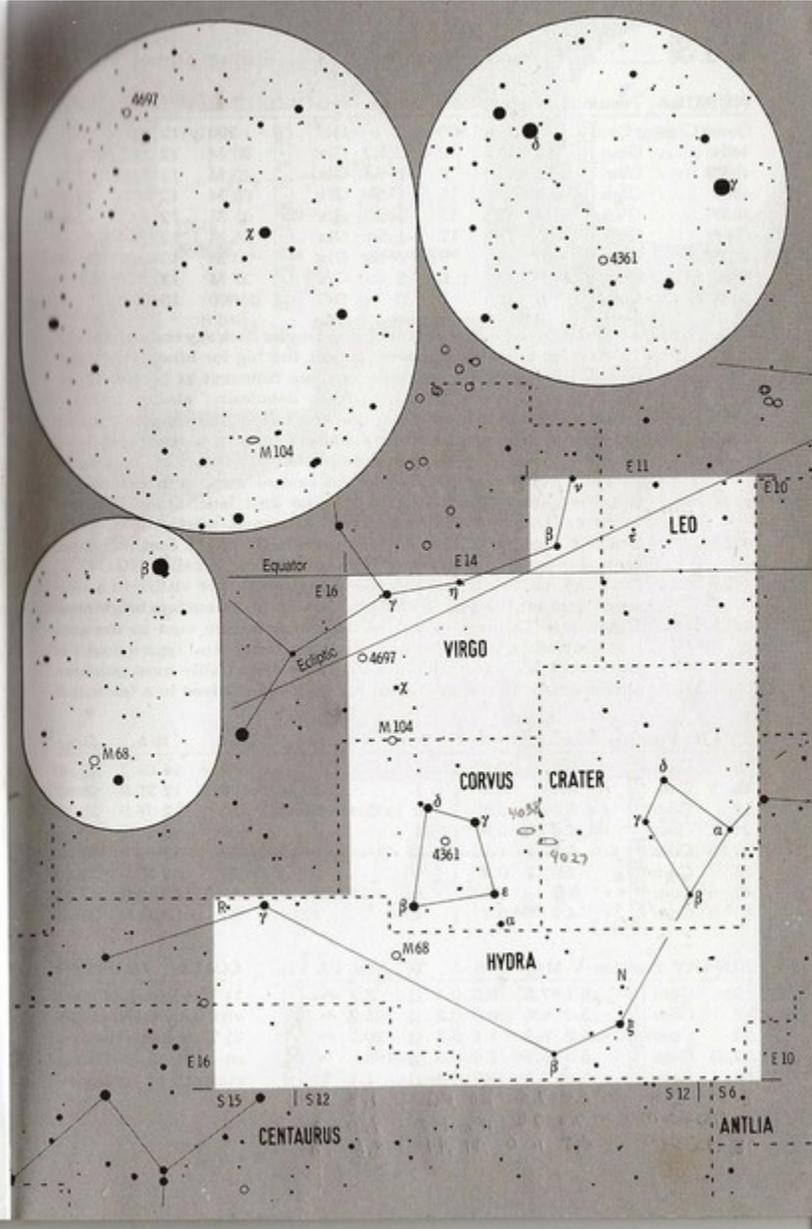
STAR	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.
84 τ	Leo	5.0	7.5	1.0	0.4	11 89°	☉☉
N	Hya	5.6	5.8	0.5	0.5	11 9.5	☉☉
29 γ	Vir	3.5	3.5	0.4	0.4	11 <sup>h</sup> 0	☉☉



### VARIABLE STAR

R Hya   
 Period 387 d  
 Max. 2451330  
 Min. Max.+200  
 Extrema 3.5-10.9  
 The period has been decreasing; it was close to 500 days during the early 1700s.

74 Δ Crv 3-8½ A0 A2 242 2M  
 V Crv 4-9 A7 A1 5.2 96



(courtesy of John Reising)