

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio

December 2016

Website: blackriverastro.org

Newsletter submissions: [Editor](#)

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--Friday, December 2, 7-9 p.m.: Public observing, Nielsen Observatory
(cloud backup date Saturday, December 3)

--Wednesday, December 7, 7 p.m.: Eating Meeting, Beaver Creek
Reservation, Holiday Potluck. Bring a dish to pass, and bring your own
beverages and table service.

--Thursday, December 15, 7 p.m.: Board Meeting, Blue Sky Restaurant,
Amherst

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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.

BREAKING NEWS: Verizon Breaks BRAS TNS Service

On November the 18th the BRAS Text Notification Service was used to send announcements of public observing to those subscribed to the list. The service sends emails to SMS gateways that are then delivered as text messages. On November the 18th Verizon's SMS gateway server blocked all messages originating from brastns@gmail.com, the email account used to send messages in batches of 20 or fewer. About 90% of our text recipients are on Verizon, so they have effectively broken our system and I don't expect that it's possible to get us unblocked or to find anyone at Verizon capable of or willing to fix the problem. (Verizon is well-known for lousy customer service and has a long history of bogus data charges.)

It's also the case that using the SMS gateway generates no income for Verizon from the sender, as they have no way of charging the originating email address for sending the message.

Sprint and CenturyTel have also had sporadic performance from their SMS gateways.

You should still be able to get TNS announcements on your phone if it's connected to your email account.

Also, if you use a decent email program or service, you can probably set up all emails from brastns@gmail.com to be forwarded to your phone as texts through the Verizon SMS gateway. Just set your email program or service to automatically forward all emails from brastns@gmail.com to 4405551212@vtext.com, substituting your own phone number.

As a result of Verizon's actions, we will be forced to revert to email only notifications. All those who wish to receive notifications in the future will need to provide an email address. You can do that by sending email from the address where you want to receive notifications to brastns@gmail.com containing the word 'subscribe'. You may also cancel email notifications by sending an email with the word 'unsubscribe'.

~Lee Lumpkin
TNS Manager

BOARD SUMMARY Nov. 10, 2016

The meeting was called to order at 7:01 p.m. with eight Directors present. The minutes of the last meeting were read and approved as was the Treasurer's report. Committee reports came next with *Guidescope* Editor Bill Ruth reporting that the newsletter was status quo although he would like more member submissions. Webmaster Lee Lumpkin reported that the Oberlin College link was no longer working, so it was removed, and Lee also removed the item about the dome for sale as a buyer was found. There was no Instrumentation report.

Under OTAA, a conflict occurred with the BRAS OTAA Convention date. The Cuyahoga Astronomical Association had to move their convention date out of August, and choose Sept. 16 which was the same date we had chosen. CAA uses the meeting room at Letha House Park which is frequently rented, and thus sometimes has limited dates available. We decided to see if we could move our convention date to the following weekend, Saturday Sept. 23rd, and Dan Walker volunteered to contact the church about hall availability. (UPDATE: The Birmingham United Methodist Church Hall was available on the 23rd, so we have officially moved our convention to that date.) The OTAA 2017 Convention dates are as follows:

CVAS	Saturday June 17
MVAS	Saturday Aug. 12
CAA	Saturday Sept. 16
BRAS	Saturday Sept. 23

The Metro Parks Liaison had no report.

Programming is set as follows:

December	Christmas Party and Pot Luck Dinner	At the LCMP Amherst Beaver Creek Reservation
January	Video provided by Greg Zmina	
February	Dave Lengyel (tentative) The Sky and Telescope Sky Calendar or Meteor Crater with display of the BRAS meteor collection	
March	John Reising on doing a Messier marathon	
April	Program on the total solar eclipse coming on Aug. 21 st	
May	Tim Kreja topic TBA	

Next came Old Business with the President having only a few items.

First, Schauer thanked Lee Lumpkin for taping Diane Lucas' talk last month and for preparing to make the video available to members (see new business). Lee was also thanked for working on the CAD drawings of the observatory complex which we will use when we approach the Metro Parks about adding a new building to house the new 16" telescope, and also for creating Telrad finder charts of Messier objects to be used at the observatory.

Next came the report that the recently donated 6" f8 Newtonian telescope has been delivered to the observatory and is available for any member to use. Schauer also reported that the new Telrad finder has been installed on the orange tube C-14, and the new thumb screws that we ordered to be used on the "Blue Lady" refractor are in the Telrad box in the center cabinet at the Nielsen. The final item of old business was a brief discussion of putting the donated 16" telescope on the pier on the east side of the observatory, and mothballing the black C-14. It was decided not to do so.

Under New Business, Dan Walker and Jeff Walsh have found the Binocular Sky Newsletter online and have found it to be very useful. Since the copyright law allows, we will put a link to it on our web page.

The majority of the meeting was taken up in selecting Public Observing dates for 2017. The President produced handouts of astronomical events happening next year, and using these, dates were selected. Due to the weather, we only schedule one observing session in December, January and February, and start trying for two dates in March. Oddly, other than the total solar eclipse in August, 2017 had few unusual astronomical events. Thus, dates were selected around the Moon and to accommodate a few meteor showers. The dates selected will be added to the BRAS calendar soon and have also been provided to Tim Fairweather of the LCMP, who is kind enough to add them to the *Arrowhead* for us. Solar Observing dates will be selected as we get closer to Spring.

The last item of New Business was a brief discussion about where to put the Diane Lucas talk on the website. It was decided to put it in two formats on the club Forum.

Dates for December are:

Public Observing	Friday/Sat. Dec. 2/3 rd	7:00-9:00	Nielsen Observatory
General Meeting	Wednesday Dec. 7 th	7:00	Amherst Beaver Creek Reservation.
Holiday potluck: members should bring a dish to pass, a beverage, and paper plates, plastic forks, etc.			
Board Meeting	Thursday Dec. 15 th	7:00	Blue Sky Restaurant.

The meeting was adjourned at 9:06 p.m.

~Steve Schauer

Scenes from the NASA Plum Brook Station Tour October 17, 2016

Many thanks to Ray Sajka, who conducted the tour. Photos courtesy of Len Jezior.



Conference room outside control room of rocket test firing facility monitoring building.

Vibration test chambers.





Vibration test chambers and vacuum chamber.

Rocket test firing chamber.



Deep-Sky Objects for December

Objects for Binoculars							
02 ^h 19.0 ^m	+57° 09'	NGC 869	5.3v	29'		Per	Open Cl 200• Double Cluster
02 ^h 22.4 ^m	+57° 07'	NGC 884	6.1v	29'		Per	Open Cl 115• Double Cluster
02 ^h 42.0 ^m	+42° 47'	M34	5.2v	35'		Per	Open Cluster 60•
05 ^h 03.4 ^m	+60° 27'	Beta	4.0, 8.6	80.8"	208°	Cam	Double Star
05 ^h 06.1 ^m	+58° 58'	11 & 12 Cam	5.4, 6.5	108.5"	8°	Cam	Double Star
05 ^h 44.5 ^m	-22° 27'	Gamma	3.7, 6.3	96.3"	350°	Lep	Double Star
Objects for Small Telescopes (2-6 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
04 ^h 07.0 ^m	+60° 55'	NGC 1501	11.5v	51"		Cam	Planetary Nebula
04 ^h 07.7 ^m	+62° 20'	NGC 1502	5.7v	7'		Cam	Open Cluster 45•
06 ^h 18.7 ^m	+78° 21'	NGC 2146	10.6	5.4'x4.5'		Cam	Galaxy
05 ^h 14.5 ^m	-08° 12'	Beta	0.1, 6.8	9.5"	202°	Ori	Double Star Rigel
06 ^h 08.4 ^m	+13° 57'	NGC 2169	5.9v	6'		Ori	Open Cluster 30•
07 ^h 27.1 ^m	+80° 11'	NGC 2336	10.4v	6.4'x3.3'		Cam	Galaxy
Objects for Medium Telescopes (8-14 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
04 ^h 32.8 ^m	+78° 53'	NGC 1560	11.4v	9.2'x1.7'		Cam	Galaxy
05 ^h 24.5 ^m	-24° 33'	M79	7.8v	8.7'		Lep	Globular Cluster
05 ^h 46.7 ^m	+00° 03'	M78		8'x6'		Ori	Emis. & Refl. Nebula
05 ^h 27.5 ^m	-12° 42'	IC 418	9.3v	12"		Lep	Planetary Nebula
05 ^h 33.4 ^m	-21° 57'	NGC 1964	10.7v	5.0'x2.1'		Lep	Galaxy
07 ^h 28.9 ^m	+69° 13'	NGC 2366	10.8v	8.2'x3.3'		Cam	Galaxy
Objects for Larger Telescopes (16-inch & larger) Challenge Objects							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
03 ^h 46.8 ^m	+68° 06'	IC 342	8.4v	22.0'x22.0'		Cam	Galaxy
05 ^h 00.0 ^m	-26° 01'	NGC 1744	11.3v	5.1'x2.5'		Lep	Galaxy
05 ^h 06.9 ^m	-03° 21'	NGC 1788		5'x3'		Ori	Reflection Nebula
05 ^h 42.1 ^m	-09° 05'	NGC 2022	11.9v	11.9v		Ori	Planetary Nebula
06 ^h 13.8 ^m	+12° 48'	NGC 2194	8.5v	8'		Ori	Open Cluster 80•
07 ^h 36.9 ^m	+65° 36'	NGC 2403	8.5v	25.5'x13.0'		Cam	Galaxy

Print and use the [Deep-Sky Interest Group - Observation Form](#) to record your observations.

Thanks to Len Jezior for providing deep-sky object charts.

Binocular Sky Newsletter

The Binocular Sky is an outstanding on-line resource for binocular observers. Here is a link to its homepage: <http://www.binocularsky.com/index.php>, and here is the link to the current issue of the *Binocular Sky Newsletter*: <http://binocularsky.com/newsletter/BinoSkyNL.pdf>

Binocular Vision Extenders

I started out with a pair of 1X8 binoculars. Little did I know at the time that they did not focus on distant objects very well. It was only about seven years later that they were fitted with corrective optics. While this made distant objects appear crisp, they also introduced off-axis distortion, chromatic aberration, and minification of the view which made playing baseball in the schoolyard a challenge: my feet looked tiny and ten feet under me. Still, I could see stars clearly for the first time.

Much later I picked up a pair of cheap Bushnell 7X50 vision extenders with fast focus. How marvelously bright and clear distance vision became. The stars could be put into perfect focus. Just looking at any distant object or vista was a joy. With a homemade tripod adapter the views of the clear night sky were crisp and steady.

For viewing Comet Halley I picked up a pair of 11X80 vision extenders and a tripod mount, and savored the bright, clear views it provided. Halley was very visible, but the Milky Way and dark nebulae in the Everglades wilderness sky were the standouts.

Then came the acquisition of 20X80, 14X80, 10X42 and 10X50 vision extenders, and a counterweighted parallelogram mount to make it easier to see, while standing or sitting, objects at the zenith.

Over the decades, my original binoculars have become 1X5s, and age-related changes to their optics have reduced their acuity somewhat. Clouds are coming and going in the eyes as well as the skies. I recently looked closely into my collection of vision extenders to see if they may need cleaning and noticed all of them had fungal growth patterns on the lenses and prisms. This, beyond changes in the binocular vitreous and lenses, may also have contributed to the gradually softening image contrast in the field of view.

Using bifocals with vision extenders can be problematic. At a recent OTAA star party I was seeing double stars through the 10X42s that weren't supposed to be double stars. Having ruled out possible effects from eating some strong bourbon balls someone had slipped among the desserts, I thought the 10X42s were way out of collimation. It turned out I was actually seeing stars above and below the bifocal line simultaneously, which caused the double images when the bifocals were slightly askew.

I ordered on-line a pair of 10X50s that are waterproof and filled with dry nitrogen. They're keepers, not perfect but very crisp and affordable vision extenders, fungus-free and fungus-proof.

I'm in the process of taking the old vision extenders apart, and maybe, with luck and the application of Tough-Acting Tinactin (or rather 3% hydrogen peroxide) to the fungi this might, or might not, give them a new lease on life. If this experiment doesn't pan out, then I might click the mouse a few more times and find a new waterproof and nitrogen-purged large image extender showing up on my doorstep.

For now, though, the view through these trusty, handy 1X5s is still good enough, with and without vision extenders, beholding this beautiful planet, its lifeforms, and its surrounding sky.

Clear eyes and skies,

~Bill Ruth