

Newsletter of
The Black River Astronomical Society

Guidescope

Lorain County, Ohio

January 2016

Website: blackriverastro.org

Newsletter submissions: [Editor](#)

Wednesday, January 6, 7 p.m.: Regular meeting—note: the meeting place this month is Oberlin College Peters Hall Observatory and Planetarium (see map at <https://new.oberlin.edu/dotAsset/2749058.pdf> --Peters Hall is #41 on map--50 N. Professor Street--park just to the left of Rice Hall, #45. Parking lot entrance is off West College Street. Use southwest entrance of Peters, take elevator to 4th floor, then enter stairwell across the room).

Thursday, January 14, 7 p.m.: Board Meeting, Blue Sky Restaurant, Amherst, Ohio *

Friday, January 15 (backup Jan. 16), 7-9 p.m.: Public observing, Nielsen Observatory

Travel Travail Avoidance Reminder

Before planning to drive to a regular meeting or to a club observing session in this upcoming fun stretch of northern Ohio winter and post-winter, please check the club website [blog](#) before you leave to make sure that the meeting or session has not been canceled due to hazardous driving conditions.

Observing sessions may also be cancelled due to either hazardous driving conditions or to really crummy sky conditions, so please--save yourself an unnecessary trip or unnecessary risk to life and limb, and check that [blog](#) first. Updates are posted an hour or three prior to the scheduled event.

BOARD SUMMARY December 11, 2015

The December Board meeting was called to order at 7:03 p.m. with nine Directors present. The minutes of the November meeting were read and approved as was the Treasurer's Report. BRAS members are reminded that dues were payable as of October. Anyone still needing to pay may do so at the January General Meeting or a check may be mailed to Dan Walker, our Treasurer.

Committee reports came next, with the *Guidescope* editor Bill Ruth reporting that all was well and that he had received some submissions, which are appreciated. Lee Lumpkin reported that all was well with the website, although he asked that anyone who finds dead link or any other problems to please report them.

The Instrumentation chairman John Reising has been out to the observatory and reported that it was clean and dry. While he was there, he removed the 13 inch Odyssey mirror from the telescope and returned it to its padded plastic storage container. He discovered a small chip on the edge of the mirror, but it can be covered by one of the mirror clips when it is reinstalled. The silvering is in good shape, but the mirror could stand to be cleaned. The other telescopes seem to be operating well.

The OTAA committee chairman reported that the other clubs have announced their 2016 OTAA conventions as follows: CVAS, June 11; CAA, July 30; MVAS, Aug. 6; and BRAS, Sept. 3.

Plans will be made to attend these conventions to support our sister clubs.

The Metro Parks Liaison, Steve Schauer, reported that he has contacted Jannah Wilson at the

LCMP Mill Hollow Reservation to reserve Mill Hollow for our second annual World Wide Solstice Festival. We have chosen June 26th as our date, and we were able to reserve that date. The only small difficulty is that the Carriage Barn has already been reserved for a private party. We can, however, have use of the summer kitchen in the Bacon House. Last year, the summer kitchen was used for the art gallery, and movies were shown in the Carriage Barn. Since the Carriage Barn isn't available, the movies will be moved to the summer kitchen and we will forgo the art gallery for this year only.

Programming is set through June as follows:

Jan.	Dave and John R.	Oberlin College Planetarium show
Feb.	Dave Lengyel	Sky Gazers Almanac and his trip west
Mar.	John O'Neal	Solar topic TBA
Apr.	John Reising	The Mars Opposition and observing Mars
May	Rich Thompson	Iridium Satellites: history, use and future
Jun.	Len Jezior	Understanding R.A.

Under Old Business, Lee Lumpkin reported on his conversation with Kelly Ricks who is currently living in Utah. Lee contacted her to give her an Ottewell Calendar as a token of the Board's appreciation for her service to the club. The rest of the time was spent in selecting dates for Public Observing for 2016. Last month we had selected dates through May, but quit there until we had the dates of our sister club's OTAA conventions so that we didn't conflict with them. We finished out the year and the chosen dates have been entered into the Calendar on the website.

There were only four pieces of New Business. First, Schauer read an email from Mrs. Nagy reporting on how she and her husband Balazs are doing. They recent moved into a retirement community where Balazs is suffering from memory issues. They are happy there. We have been sending them monthly copies of the Guidescope, but Mrs. Nagy indicated we could stop at this time.

The second item of New Business concerned a request for our participation in a program being put on by the city of Avon Lake called "Dark Skies, Bright Kids". This will be a program at their Community Center on Friday Feb. 12 from 6:00-9:00 p.m. There will be a NASA speaker and NASA exhibits. We have been asked to provide a speaker and to have telescopes outside if it is clear. The only issue for us is that we also have Public Observing scheduled for that night, and it has been published in the *Arrowhead*, so it is too late for us to change our date. President Schauer wanted a commitment from Directors on who could go to Avon Lake and who would come to the observatory and be available to run the public session. Since enough volunteers are available, we will commit to both events. Avon Lake has also contacted our friends at Chagrin Valley who may also attend and give presentations.

The next item was a report on two framed items that had been hung in the observatory and had been damaged. Both have been repaired and are in new frames. They will be remounted the next time we are at the Nielsen.

The last item of New Business came from Ken and Barb Hubel who attended the meeting. They are cleaning out their home and consolidating their observing equipment. They presented the club with a solar filter, four 1-¼ "eyepieces, a 1-1/4 " Barlow, a 0.96" eyepiece and a 2" eyepiece that are contained in two padded cases. The club gladly accepted this generous gift with our thanks.

Dates were set, and the meeting was adjourned at 8:31 p.m.

ASTRONOMY ON THE NET

I'm Len Jezior, amateur astronomer, technogeek & BRAS member. This month I have more links with current and hopefully interesting new happenings in astronomy, astrophotography and cosmic discoveries in general.

Video resources are short and playable on most, if not all, readers, computers & tablets. To view, simply copy the URL and paste it in your favorite internet browser or many PDF readers will allow you to click/hold on the URL to automatically connect.

This month, I'd like to share the following...

Collimating your Schmidt-Cassegrain in just a few minutes. 2 videos on an adjusting process that sometimes scares new amateurs (and older ones too). One uses an "artificial star", the other, a collimation tool...

STAR VIDEO: youtube.com/watch?v=hqRVIDj4aZA

TOOL VIDEO: youtube.com/watch?v=kJdo8RwDwi4

Unexpected data on comet 67P. A silver lining to a botched landing...

VIDEO: youtube.com/watch?v=7LSzWdxxhVAu

Earth has another moon? Maybe...

VIDEO: youtube.com/watch?v=rmQepa1qnI0

What if we **replaced the moon** with a planet...

VIDEO: youtube.com/watch?v=usYC_Z36rHw

That's it for this month's *Astronomy on the Net* but not for stuff that's out there. If you've discovered similar sites you'd like to share, please drop me a line at... lmj@lakecareer.com . Here's to clear skies & good imaging

~Len Jezior

U.S. Government Looks to Guard Against Solar Storms

Late last month, the White House announced the framework for a plan to protect the nation's power grid from a major solar storm. The two documents, officially known as National Space Weather Strategy and National Space Weather Action Plan, outline a 6-part plan to guard the grid. For people in the know (many people don't even know that solar and space weather exists at all), this comes as belated but welcome news considering that the government's previous strategy was one of keeping its fingers crossed and hoping the run of good luck would continue.

So, why should you care about space weather and the grid?

First up, space weather. For anyone who didn't know that space weather even existed, here's proof that it does in a form that just about everyone has heard about: the aurora, also known as the Northern Lights, which are caused when the energized particles from the Sun come into contact with Earth's upper atmosphere. Needless to say, no harm can come because of the aurora, which represent a gentle shower on the scale of space weather severity. But what about a solar hurricane? What would one of those look like?

Answer: the Carrington Event.

The year was 1859 and it was during this year that the Earth was subjected to the strongest solar storm ever recorded. Named after Richard Carrington, the astronomer first to discover the storm's origin was a series of sunspots, the storm was so strong that aurora were visible over Hawaii, and telegraph lines, the extent of 1859 electronic technology, caught fire. As for what could happen if a Carrington-magnitude event hit today, things wouldn't be pretty as the nation's entire power grid could go down and remain down for months as crews work to fix up to \$2.5 trillion in damage.

While no one can control the Sun, we humans can control the grid, which many analysts fear is out of date and overly susceptible to a solar superstorm.

The problem: the grid was not built with a master plan, rather it was added to and modified as our appetite for electricity increased, the service area expanded, and technology improved. Result: an electrical hodgepodge of sorts supplying power all across the nation. Why the mix of old and new? Money. It would be simply too expensive for the power companies to update their service areas all at once and the customers? The call center lines would probably be alight with angry customers over any service disruptions (probably only in the hours) brought about by the updating. End result: leave things be and fix them when something goes wrong. It doesn't take an engineer to see that our nation as a whole has been rather neglectful of its power supply system, without which we would be transported over 100 years back into time.

Well, now things may be starting to change.

In the new The White House documents, these specific actions are what are called for: 1) Establish benchmarks showing how commonly severe space-weather events occur; 2) Improve the ability to respond to, and recover from, such events; 3) Reduce or eliminate vulnerabilities to flares and geomagnetic storms; 4) Improve predictions about impacts on critical infrastructure; 5) Improve forecasts of space-weather events, and knowledge of space weather more generally; and 6) Increase international cooperation (because impacts of extreme events will likely be felt across the globe).

Now, while it is good that our leaders are finally starting to take the much overdue task of protecting the grid seriously, one must remember that the White House proposal is just that, a proposal. As with all government spending, any bill authorizing money for fortifying the grid must originate in the House of Representatives. Hopefully those in Washington DC, the town that can't agree on anything, will come to their senses and set aside the funding to protect the grid, which is something anyone with any common sense would agree is a good idea.

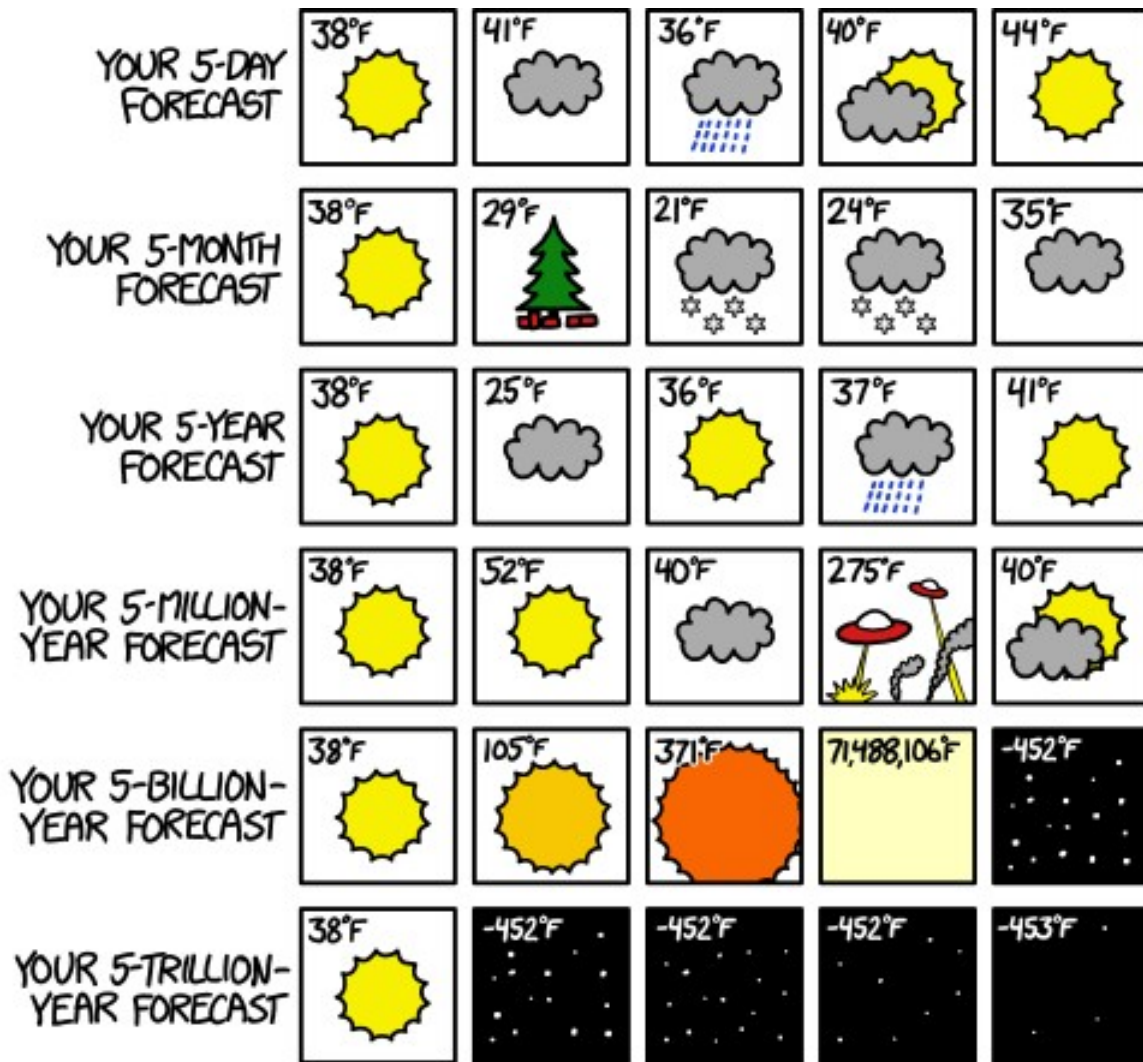
~Denny Bodzash

Here are three photos of the events prior to the occultation of Venus on 12/7/15 from downtown Las Vegas, near the El Cortez Hotel and Casino. The first photo was taken about two hours before the occultation, and was about a one second exposure using the Canon SL1. The next two were taken using my 500mm Sigma zoom birding lens on the SL1, just prior to the occultation. The weather did not look good that morning but I didn't give up and a small patch of clear sky moved over about one minute before the occultation. This was a very cool event. ~Dave Lengyel









<http://xkcd.com/1606/>

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Thanks to Lee Lumpkin for this link.