

SPECTRUM

Northern Cross Science Foundation Newsletter

February, 2019

Looking Up

February 7, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting Follow

February 9, Saturday

Ski & Hike

6:00 p.m.—9:00 p.m.

Pike Lake Beach Area

February 21, Thursday

Board Meeting

7:30 p.m.

House of Jeff Setzer

February 28, Thursday

NCRAL Meeting

7:30 p.m.

Home of Rick Kazmierski

March 7, Thursday

NCSF Annual Banquet

Social Hr - 6:00 p.m.

Dinner - 7:00 p.m.

Fox & Hounds Restaurant

1298 Friess Lake Road

Hubertus, WI

(Our March Annual Banquet replaces our March "General Meeting".)

(See Banquet Form Inclosed.)

"Spectrum" News *By Jeff Setzer*

Hello Friends,

Starting with the April 2019 edition, SPECTRUM will be published online only — please let me explain why.

The printing and mailing of SPECTRUM is by far our largest operational expense (\$738 in 2018) outside of insurance (\$943 in 2018). Insurance isn't something we can do something about, but SPECTRUM is.

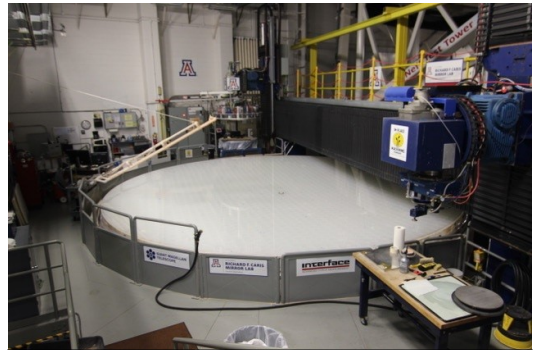
Other astronomy clubs have long since abandoned mailing paper newsletters, including our own NCRAL. As the costs of printing and postage continue to climb, while at the same time the Internet

becomes ever more ubiquitous, publishing exclusively online just makes sense. This move is also key to bringing our "fixed" operational expenses solidly under our dues income, which is necessary for the long-term financial health of the Foundation.

We know there are a few members who are not Internet-savvy, and for those who raise their hand, we will be happy to provide guidance to resources so they can read our newsletter from our website (for example, a local library that has computers and staff to help people read and even print online newsletters).

Astronomy and Astrophotography *By Mike Borchert*

Was reading the latest issue of the NCRAL, Northern Lights Newsletter. In it, Carl Wenning suggests adding another dimension to travel by planning an astronomical event in your itinerary. Cannot agree more. Was in Arizona visiting my daughter and planned a trip to the University of Arizona's Mirror Grinding Lab. Was fantastic on so many levels. I feel a presentation in the works. Was also able to stop in the last remaining missile silo, reminiscent of the cold war years. When you are up close and in person, It is hard to imagine.



University of Arizona Mirror Grinding Lab

By Mike Borchert

Found an astronomy club in the Phoenix area, The East Valley Astronomy Club. Look them up if you are in the area. Very easy to attend a meeting like that, if the dates line up. Asked the club president by email, if there was anyone looking to share some astrophotography time. He mentioned that I should introduce myself on Facebook, which I did. Low and behold, there is a group of about four guys interested in renting some time on the 24 inch Clark scope, up at the Lowell Center. I immediately said great! Well I am waiting for the stars to line up. I need good weather and the four guys need to agree on a common time. It will be yet to be seen if this works out. But hey, what do I have to lose. To be Continued...



Titan Missile Silo *By Mike Borchert*

January Meeting Minutes

By Kevin Bert

The January 2019 Business meeting of the Northern Cross Science Foundation was held at the GSC Technology Center in Germantown. President Jeff Setzer called the meeting to order at 8:05pm and welcomed 22 members and guests. He then asked for standard reports.

Treasurer Gene Dupree tells the membership that the checking balance is \$11,790.56 and the Observatory balance remains at \$418.49.

Secretary Kevin Bert reports that the membership roster remained the same. Under the Astronomical League the 2019 national convention (ALCON) will be held at the

Kennedy Space Center. Our own regional convention of the astronomical League this coming May 3 - 5 will be highlighted in an upcoming newsletter.

The observatory Director Dan Bert encouraged members to sign a thank you card for the park... The new red rope light control over the north countertop is now ready to go. The roof turnbuckles will be numbered to encourage observatory operators to count while removing the hooks prior to opening the roof. (The magic number is 6). A quick repair is finished on the declination brake of the 20-inch scope so it now will hold tight again.

With no new business Jeff reminded members there are a few upcoming events. January

19th is a ski and hike at Horicon Marsh. Clear weather permitting some telescopes will brave the cold and show celestial delights to what could be a possible large number of people. January 20th members will be out at Harrington Beach to view the Total Lunar Eclipse. Ernie Mastroianni is the leader for the evening as partial phases start at 9:30pm. with totality at 10:40 pm. The park approved extending the 11:00 pm. curfew to midnight. February 2nd is a night of telescope viewing at the Reuss Ice Age Center. Lastly Pike Lake State Park has a Ski and Hike on February 9th where telescopes are welcome.

With no further business Jeff closed the meeting at 8:30 pm.

Blood moon eclipse competes with clouds at Harrington.

By Ernie Mastranni

For many in the greater Milwaukee area, January's total lunar eclipse was mostly cloud free, but for observers at the Plunkett Observatory at Harrington Beach State Park, lake effect clouds marred the viewing.

Despite single digit temperatures, about 30 visitors came to view the spectacle, led by members Ernie Mastroianni and Kevin Bert.

Though the clouds dimmed the viewing, they did not completely obscure the moon, and brief pockets of clear skies revealed its deep orange color as it slide through about an hour of totality. But because of intermittent clouds, no one was aware, and no one mentioned the brief flash of a meteor strike during totality, which was widely reported and seen by independent observers.

The next total lunar eclipse visible in its entirety from North America won't be until May 16, 2022, and only for viewers in the eastern and midwestern US.

<https://eclipse.gsfc.nasa.gov/LEplot/LEplot2001/LE2022May16T.pdf>



The light of the pre-eclipse full moon punches through clouds at Harrington Beach State Park.

For a total lunar eclipse that will match the nationwide visibility of this most recent eclipse, you'll have to wait until March 14, 2025.

<https://eclipse.gsfc.nasa.gov/LEplot/LEplot2001/LE2025Mar14T.pdf>

Data for future eclipses and where they can be seen is here.

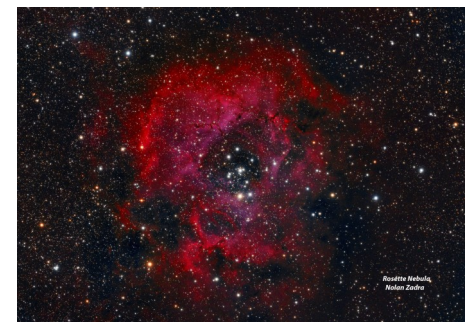
<https://eclipse.gsfc.nasa.gov/LEdecade/LEdecade2021.html>



Several background stars can be seen around the moon as the eclipse reduced its glare. At the upper left, a small section of the moon shines in sunlight as totality ends. Photo by Ernie Mastroianni

Rosette Nebula By Nolan Zadra

As a number of people know, I experienced Murphy's Law² during the past year and 1/2 - most relating to laptop failures communicating to the mount. It was so bad during the first 6 hours of the 12 hour night I put in 3 weeks ago, that Tom and Arun heard me say that I was going to give up on the hobby. So my thanks to them for being there, and thanks to Paul for getting my going on finally using a flat panel, to Jeff and Gabe for assisting me with equipment solutions and most of all, my gratitude to Chad who put up with a years worth of nagging, setting up SGP and restoring my laptop after the prior install (after a solid state drive upgrade) included cloned software that was bugging it up.



Rosette Nebula Photo by Nolan Zadra

This is a fully batch processed image including star alignment and integration and no drizzling. I know that's not optimum, but I just wanted to get to something so I could finally try some post-processing. I am glad it worked out because I was exhausted and basically going to give up for perhaps ever.

Harrington Beach Jan 4, 2019

Images in the Newsletter are best viewed in full color and high resolution in the digital format members receive by e-mail.

February General Meeting

Astronomy 101 - Kevin Bert

"Winter Sky Highlights"

Weather in winter is cold and often uncomfortable for outdoor activity. But for the star gazer that dresses appropriately and waits for a mild clear evening some wonderful naked eye and telescopic sights await. This class will explore some of these awe inspiring sites.

Main Program -

"Adler Planetarium - Backstage Pass"

In the "Astronomy Backstage: Chicago DVD", **Adler Planetarium**, you'll experience the first planetarium in the Western Hemisphere. You'll see highlights from Adler's collection of ancient astronomical instruments and rare books like those signed by Johannes Kepler and William Herschel.

Related Info

Winter Events 2019

February 9, Saturday

Pike Lake
DuPrees

March 23, Saturday

Swap and Sell
Heritage Center, Sheboygan

January Viewing Events

Horicon Marsh, January 19

By Charlotte DuPree

As we left home, for the Horicon Marsh Education Center, it was cold, and it looked like fog because it was snowing. By the time we went through Allenton, the sky was mostly clear, and getting better by the mile! The event started out very cold, and too windy to put up a scope. We set out our handouts on our information table. Lots of visitors stopped and asked about the Lunar eclipse, hoping it was this night.



Horicon Marsh Ed Center By DuPree



Horicon Marsh Observing By DuPree

the visitors knew of the object and were happy to take a look. There was a steady waiting line, because he was near the drop off spot for the shuttle buses. We found out today the estimated attendance was 1500 to 1700.

February Planets by Gene R. DuPree

We'll start February in the morning sky, as Venus and Jupiter pass each other. Saturn becomes visible near the Moon, on Feb. 1 and 2. Orion crosses the meridian around 8 pm mid month. Uranus and Mars are getting closer together. Gemini, Cancer, Auriga, and Leo are well placed in the night sky, with lots of fine objects to see.



© Joel Patt



Around 6:00 the wind had died down, enough for Gene to go outside and set-up the 12.5 inch scope. Because of the cold I would go out to give him a break, so he could go in to warm up. The temperature was 7 with a --1 feel like. Even though there was an almost full Moon, he was able to follow the Orion Nebula. A lot of

Star Parties 2019

NCRAL

May 3 - 5

Moline, IL.

2019NCRALInfo@gmail.com

(See Insert)

WOW

May 30 - June 2

Hartman Creek State Park

WWW.new-star.org

Northwoods

August 1 - 4

Hobbs Observatory

Beaver Creek Reserve

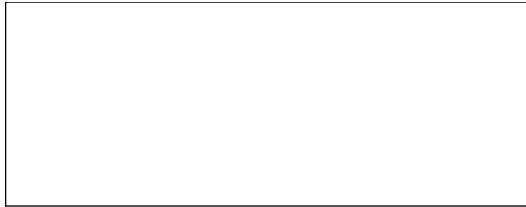
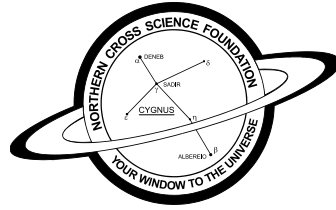
Fall Creek, WI.

www.cvastro.org

Jim & Gwen Plunkett OBSERVATORY



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12th Annual Swap-n-Sell

Join us as we celebrate the 12th anniversary of our annual Swap-n-Sell event. Got some astronomical stuff (scopes, eyepieces, books, etc.) laying around that you want to get rid of? Here's your chance! Bring unwanted astronomy items to sell or swap with other amateur astronomers! This is a great opportunity to meet and greet fellow amateur astronomers. Speak venue will be announced on our website: www.shebastro.org. Brat fry will also be held during this time.

Date: Saturday, 3/23/2019

Time: 9:00 AM - 2:00 PM

Location: Aviation Heritage Center, N6191 Resource Drive, Sheboygan Falls, WI 53085, Sheboygan, WI 53081



Sheboygan Astronomical Society

SPECTRUM

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NCSF is a member of the North-Central Region of the Astronomical League.



NCSF supports the *International Dark Sky Association*

This Issue, along with back Issues of SPECTRUM, can be found on the NCSF Web Site.

Monthly Meeting Information

7:00 p.m. Astronomy 101 Mtg.
7:30 p.m. Main Program
Location at the -
GSC Technology Center
W189 N11161 Kleinmann Dr
Germantown, WI 53022

Spectrum Newsletter
5327 Cascade Drive
West Bend, WI 53095

Please send your Questions, Suggestions, Articles, and photos to:
rickkaz@charter.net