

SPECTRUM

Northern Cross Science Foundation Newsletter

September, 2017

Looking Up

September 7, Thursday

General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to Follow

September 9, Saturday

Community Campfire

6:00 p.m.—9:00 p.m.

Pike Lake Campground

September 16, Saturday

Binocular Party

8:00 -11:00 p.m.

Harrington Beach

September 21, Thursday

Board Meeting

7:30 p.m.

House of Jeff Setzer

September 29, Friday

Public Viewing

7:00 -11:00 p.m.

Harrington Beach

September 30, Saturday

Public Viewing

7:00 -11:00 p.m.

Harrington Beach

September 30, Saturday

Public Viewing

7:00 -11:00 p.m.

Pike Lake Campground

October 5, Thursday

General Meeting

101 - (To be announced)

7:30 p.m. - Main Program

Business Meeting to Follow

TOTAL ECLIPSE of the SUN - August 21, 2017 by Rick Dusenbury

For the past two years, most of us in the NCSF began to make preparations to view this great event. Indeed, many of us made reservations for Cedar Lake Campground in southern Illinois far ahead of time to be in the path of totality. The years turned to months, then weeks, and finally days, and then it was time to go!

I planned on two days for the long drive and went through places such as Harvard, DeKalb, Ottawa, Bloomington/Normal, and Clinton where I stayed overnight. Then it was on to Decatur, Vandalia, and finally Interstate 57 and 24, and camp. I arrived on Friday and set up my tent.



Main site of amateur Astronomers, but others were spread out across the Campground.

Many of our members were already there with more coming over the weekend. It was good to see many familiar people not only from NCSF but also from the New Star group. Several members of New Star entertained us with good folk music with guitars, fiddle, mandolin, and even a stand-



Jamming - Good Music, Great Fun!

up bass. Except for a quick trip into Vienna, I stayed in camp the whole time for fear of getting stuck in eclipse traffic and running out of gas. Each day was very hot and muggy, but clear, allowing good star gazing opportunities and solar viewing during the days with several good sun-spot groups. Finally the big day of Monday, Au-



Eclipse viewers at my telescope

gust 21st arrived with clear skies. Final preparations were made; telescopes collimated, cameras readied, filters and eclipse glasses in place. Then at just before noon, the moon began to "nibble" at the sun; First Contact! We all watched transfixed as the moon slowly "consumed" the sun. I took several photos during this time; one showing the group of people around me to view the eclipse together and a telescopic view showing the sun about 50% eclipsed. As totality neared, I placed the camera on a tripod and



went to video mode to capture the sights and sounds of those nearby. I stared intently through the eyepiece as the crescent sun became thinner and thinner. (Cont. Pg3)

The Great American Eclipse from Glendo, Wyoming

by Ernie Mastroianni

NCSF members Ernie Mastroianni, Nolan Zadra, and Chad Andrist viewed the eclipse from Glendo, Wyoming. The weather did not stabilize until late Sunday, and even early Monday morning, clouds loomed from the north. But the blue skies prevailed and the entire eclipse was visible from beginning to end. In one unexpected moment, Andrist's view of totality was nearly eclipsed by a hot air balloon which passed perilously close to the sun.

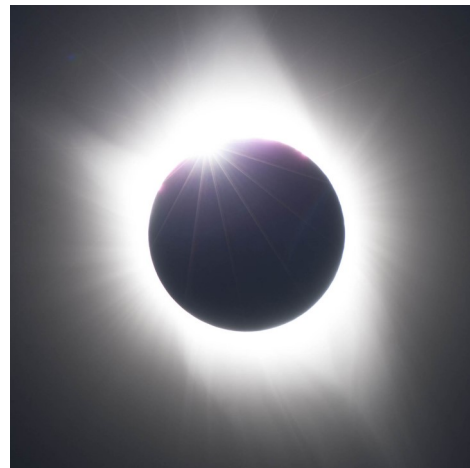
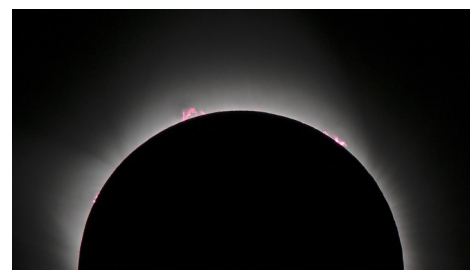
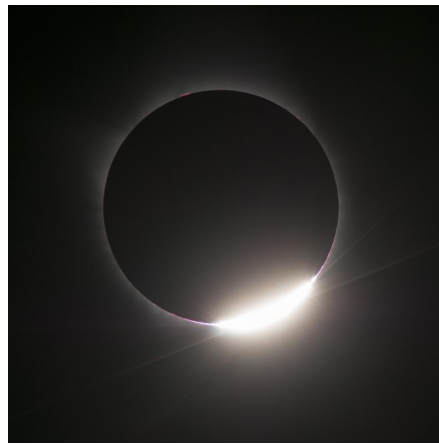


Eclipse01:
Nolan Zadra prepares a 90mm apochromatic Celestron with a Canon DSLR just prior to the eclipse start at Glendo State Park in Wyoming.

Eclipse02
Ernie Mastroianni tests his equipment a couple days prior to the eclipse. He has a Questar for visual observing (left) and a 500mm Sigma telephoto lens for photography.

Eclipse03
Eclipse viewers from Colorado line up to see the view through Mastroianni's Questar.

Eclipse04
Nolan Zadra and his wife Diantha, daughter Lindsay, and son Zach watch the eclipse progress.



Eclipse05
Despite the solar minimum, a string of sunspots stretched across the solar disc as the eclipse progressed.

Eclipse06
The diamond ring glows during the last few seconds prior to totality.

Eclipse07
As totality begins, a short exposure reveals details in a few solar prominences.

Eclipse08
A closer view reveals more detail.

eclipse09
Longer exposures captured the feathery structure of the outer corona.

Eclipse10
And in one of the fastest two minutes ever experienced, totality closed out with the reappearance of the diamond ring.



Much like the home team fans that leave with the knowledge that victory is assured, lines of cars get stuck in Glendo's traffic just minutes after totality, even though the partial phase is still playing the game. And once they got out of the park, the massive traffic jam on Interstate 25 delayed travel for hours.

September General Meeting

Astronomy 101 - Kevin Bert

The Universe Sampler

The Astronomical League has many observing programs to offer members of participating astronomy clubs. One program in particular contains a lot of great information for the beginner. The next several classes will explore those basics that every serious enthusiast should know.

Constellation of the Month - Lacerta

June Public Viewing Event

Horicon Marsh - July 8

Charlotte DuPree

The four county Library Consortium event was on a Saturday this year. There are many indoor and outdoor activities with solar viewing as our job. We were surprised by how many people knew about the coming eclipse, and their plans to drive to Illinois for the day. The Sun was active and there were many prominences and a very large sunspot

Pike Lake - July 29

Charlotte Dupree

Another good night for viewing. A first quarter moon led us to find Jupiter early. Visitors are always surprised that they can see Saturn's rings so well. The usual deep sky objects were seen. We started to pack up and then had another group of visitors and stayed until 11:00. Thanks to Rick, Jeff, and Al for helping.

Harrington Beach - August 29

By Kevin Bert

Rick Wandsnider assisted me at the observatory for a reasonably clear evening of entertaining the public with many wonders of the night sky. Four other scopes were in the parking lot attended by members too. The Moon, Jupiter and Saturn were early highlights. The estimated crowd was near fifty by the time the park closed. We continued on with the moon nearly set to take advantage of the now moonless sky and were rewarded with amazing deep space views.

Harrington Beach - August 11

By Charlotte Dupree

The sky cloudy so we closed up early. There were a few visitors from the campground. Mike B. and Kevin assisted.

Pike Lake - August 12

By Charlotte DuPree

This night was clear with a few clouds coming through. We had a large crowd, from the campground, that kept coming in waves. We could not pack-up until after 11:00. Thanks to Al S., Rick D., Rick P., for their support.

Main Program - Jeff Setzer

Eclipse 2017 Review

The Great American Eclipse of 2017 was all it was cracked up to be and more. The Northern Cross Science Foundation had members observe the eclipse across the country. A dozen or so members and family were near Vienna, IL and additional members observed in Glendo, WY. In both cases, clear skies prevailed.

Star Fest at Hobbs Observatory, Eau Claire

Mike & Gayle Borchert

Gayle and I made the trip to Fall Creek Wisconsin, to attend the Chippewa Valley Astronomical Society's Star Fest, Aug 25-27. We were only able to stay Friday night, but it was important that I got to see the layout, as it was my first time there. We stayed in a cabin, which made things easier, as our camping days are behind. The weather did not cooperate but we did get about one hour of 'seeing' around ten o'clock Friday. The sky is beautifully dark in that area of Wisconsin. There were a few scopes out and we took advantage of what we could. My big moment came when Bill Chile and Ement Kyle sat down and took out his computer. We discussed astrophotography and Bill actually processed a batch of pictures he call the Leo Trio. There was a fun discussion from a University Minnesota grad student on his Nova and Super Nova hunting expeditions, in St. Paul as well as in Arizona. The food was good, and we even got a tour of the two scopes along with an explanation. All in all a great trip, looking forward now to next year, with an idea of what to expect. Made some great friends.

(Con't. from pg1)

Then, near 1:20 P.M. Baily's beads appeared followed by the diamond ring, and then—Totality! Telescope and camera forgotten and eclipse glasses removed,

It was time to simply gaze at the black hole in the darkened sky and the shimmering corona. I looked around the horizon to the north where the sunset colors showed (horizon elsewhere was obscured by trees). During totality, the temperature dropped about 11 degrees and the cicadas went wild. I only saw one planet; Venus and no stars. I didn't spend much time looking as I turned my attention back to the sun and corona. Then the diamond ring and beads appeared again and totality was over.

It went far too quickly. Where was the "instant replay" button? I guess we will just have to wait until 2024. But the memories of what we all just experienced will live on for a time!

RELATED INFO

NCSF Welcomes New Member

Robert Hoff

Rosalie Lieb



Leaders for Public Viewing

September 9

Pike Lake State Forest
DuPrees

September 16

Harrington Beach
Kevin Bert

September 29

Harrington Beach
Leaders Needed

September 30

Harrington Beach
Leaders Needed

September 30

Pike Lake
DuPrees

Happy Eclipse, Everyone!

2017 Eclipse Commemorative USA Lapel Pin

\$6 each, quantity discounts available

PRODUCT UPDATE 8/28/2017:

They're back!

Due to the HUGE number of requests we have received, we are placing one final order for more of the popular USA Eclipse pins.

ORDER BY SEPTEMBER 4TH TO ENSURE AVAILABILITY!

These pins won't arrive until the first week of October, and we will ship to you as soon as they come in...but the order will be limited and the only way to ensure you will get the quantity you want is to pre-order and pay by September 4, 2017.

2017 Commemorative USA Lapel Pin

High quality 1 inch enamel pin with total solar eclipse photo. Brass metal with dark red enamel and military clutch back.

Great keepsake/commemorative item for anyone who saw the 2017 Eclipse! Perfect for clubs... Quantity discounts available!

- limited quantities.
- Exact design may vary slightly.
- For quantity purchases of more than 10 units, please see https://store.astroleague.org/index.php?main_page=product_info&Path=14&products_id=118

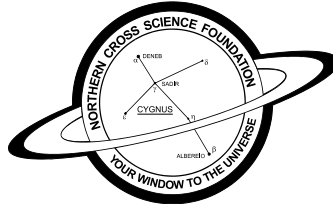
Order today at League Sales:
<https://store.astroleague.org/>



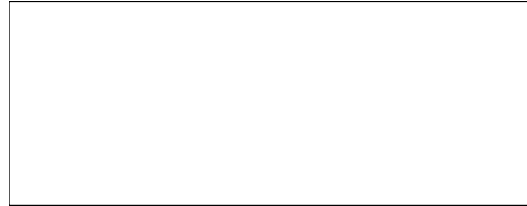
You know, I still think a one-power finder is a one-power finder...no matter how large you make it...



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**Jim & Gwen Plunkett
OBSERVATORY**



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August Meeting Minutes By Kevin Bert

The August 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 8:40pm and welcomed 29 members and guests. He then asked for standard reports.

Treasurer Gene Dupree reports \$11,312.14. in the checking account. The one major expenditure for the month was \$940 for insurance. The Observatory account balance was at \$762.23.

Secretary Kevin Bert welcomed new members Chris Fuchs from Cedarburg and Steve and Miho Olsen from Germantown.

The Astronomical League 2017 National Convention will be held in Casper Wyoming in conjunction with the total solar eclipse.

The Observatory Director Dan Bert reports that Harrington Beach continues to pursue the goal of being a Dark Sky Park. The key is to control the type of lighting at the park. Leaders are still needed for upcoming public events and interested observatory operators should contact him.

Jeff Setzer had some kind words about long time member Joe Reimbold who had passed away last month at the age of 91. Jeff then covered upcoming events for August. The 11th and 12th are public viewing nights at Harrington Beach. Pike Lake State Park also has an evening viewing on the 12th. The 21st is the big eclipse day and Rob Powell will open up the Harrington Beach Observatory for viewing that historic event. September 1 will be a public viewing night at Harrington Beach with September 2nd a viewing night at the Reuss Ice Age Center near Dundee.

It was noted that special stamps were issued depicting a total eclipse. The neat feature is that the dark featureless moon will show lunar features when warmth of a thumb is applied for several seconds. Check your newsletter because you might have one.

Some final eclipse advice is that there have been reports of some eclipse glasses not being safe for viewing. Buyers beware. Be sure to visually enjoy the eclipse if viewing in the path of totality and not get overly involved with taking pictures. The two and a half minutes or so will go by extremely fast and you want to be sure to visually witness what some call the greatest natural event of all time.

With no further business Jeff closed the meeting at 9:10pm.

SPECTRUM

Published by the Northern Cross Science Foundation, Inc. A non-profit organization based in South-eastern Wisconsin.

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:
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