

# SPECTRUM

Northern Cross Science Foundation Newsletter

December, 2019

## Looking Up

December 2, Monday

### NCRAL Meeting

7:30 p.m.

Home of Rick Kazmierski

December 5, Thursday

### General Meeting

7:30 p.m.

Business Meeting  
(Open Board Elections)  
Annual Holiday Party

### Holiday Potluck Party!

(Bringing something to share)



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**White Elephant  
Gift Exchange!**

(See Pg 3)

December 19, Thursday

### Board Meeting

7:30 p.m.

Home of Jeff Setzer

January 2, Thursday

### General Meeting

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to Follow

## Winter Stargazing Tips: Stay Warm and Cozy! *NASA Night Sky Network*



Staring at the Milky Way in Trysil, Norway—a family wrapped up for a very cold winter!

Some parts of the country feel as if the winter will never end. Massive snows, polar vortexes, arctic winds...it's almost enough to make you forget that a spring thaw will eventually arrive! One thing that is guaranteed to warm an astronomer's heart in these cold winter nights: the beautiful, sparking skies!

Orion, Taurus, the Pleiades, Sirius, the Andromeda Galaxy, the Double Cluster in Perseus: these are just a few of the gorgeous sights that are at their peak in the winters of the Northern Hemisphere, not to mention the clockwork actions of the Moon and planets. But how can you observe and stay comfortable outside when the weather seems determined to turn you into a popsicle?

### **1. Layers are your friend!**

You may already know this, but remember to wear multiple layers of clothes! A super warm coat won't help that much if all you are wearing underneath is a t-shirt. At the same time, moving around during your setup and observing may actually heat you up to an uncomfortable degree, so being able to peel off a sweater or overcoat would be very welcome.

### **2. Warm, wool socks**

Thick cozy socks are a must, especially as the night wears on. Your feet will thank you, especially if you are wearing good boots! Which brings us too...

### **3. Waterproof boots**

You will want warm boots, and if there is snow, make sure your boots are also waterproof. Any water soaking through your shoes to your boots is a sure way to make your toes icy and prematurely end your observing. (Con't. PG-4)

## Winter Events

**January 18, Saturday**

### Ski & Hike

5:30 p.m. - 9:00 p.m.

Horicon Marsh

**February 1, Saturday**

### Ski & Hike

5:30 p.m. - 9:00 p.m.

Ice Age Center

**February 8, Saturday**

### Ski & Hike

6:00 p.m. - 9:00 p.m.

Pike Lake Beach Area

## November Meeting Minutes

By Kevin Bert

The November 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 8:15pm and welcomed 22 members and guests. He then asked for standard reports.

Treasurer Gene Dupree tells us that there is a balance of \$10,632.39 in the regular account with a balance of \$394.18 in the Observatory account. Gene reports that all of the 2020 calendars have been purchased and members need to purchase additional calendars on their own.

Secretary Kevin Bert reports that the most recent member to join was Brian Marquardt. The current roster has a total of 59 members. Under the Astronomical League there is a new Mercury transit observing program. Kevin noted that there were a lot of requirements to satisfy the program. Poor weather locally canceled any chance of participation.

There was no observatory report. It was said however, that a meeting with the park took place and covered some of the clubs concerns on lighting. The board will review attendee's take away of the meeting and report to the membership at a future meeting.

Jeff Setzer reminded members that as a non profit organization elections would be held at the December annual meeting. Joyce Jentges, Rick Kazmierski, and Gene Dupree are finishing their three year term at the end of the year. Nominations for replacements will open today and again at the December meeting prior to the election. As a reminder, officers are picked among the board members each year and not by the membership. Charlotte Dupree nominated Rick Kazmierski. Aris Penikis nominated Joyce Jentges. Rick Kazmierski nominated Gene Dupree. All nominees said they will serve if elected. With no other nominations Charlotte Dupree made a motion to close nominations and Aris Penikis seconded.

As newsletter publisher, Rick Kazmierski invited all members to send him articles for the Spectrum if they have an interest in writing on an astronomical topic. He is always looking for material to fill the newsletter and

prefers to get it from the NCSF members. Simply send him a PDF or word file by email.

2020 NCRAL convention organizer Jeff Setzer tells the membership that speakers are starting to fall into place and door prizes are being solicited. Keep the first weekend in May open for this special event.

Kevin Bert says he would like to have one more training night this year and you should contact him if you are interested. If it is clear you should be prepare for the cold.

Jim Macak gives a heads up to the membership that a potential spectacular meteor shower, the Alpha Monocerotids, will take place prior to midnight one week from this meeting. It could reach 400 per hour.

The question came up on the status of the Yerkes Observatory by Mark Zellner. Jeff Setzer reports that some favorable group announcement between the University of Chicago and the YFF, (Yerkes Future Foundation). There is still much work to be done concerning the heirs of the facility and their future plans. (Con't. PG-4)

## New Tricks for an Old Sport Lens by Ernie Mastroianni

Back when cameras still used film, many sports photographers made good use of Nikon's 300mm f/2.8 manual-focus lens, introduced in the late 1970s. Its front element is 107mm in diameter, equivalent to a 4.2 inch refractor, but with a relatively short focal length of just 300mm. This lens gathers a *lot* of light in a short amount of time.

A couple decades ago, it was in need of expensive repairs and sat idle on a shelf in an office where I worked. It was becoming obsolete with the advent of autofocus lenses, but I thought it had potential for astrophotography. My former employer owned the lens and accepted my purchase offer, but it then sat on *my* shelf for many years until I had enough spare cash for the pricey repair.



The Nikon lens and astro camera in the workshop, being refitted into custom cradle I made years ago for a film camera and lens.

When I purchased a new astro camera earlier this year, I took a second look at the lens and put it to use. I rebuilt an old wood cradle to hold it firmly in place on my 90s-era Losmandy mount. I retrieved another vintage lens from my collection to use as a guide scope.

In the fading autumn sky, the North American Nebula still rides high despite its reputation as a summer target. So on a cold November night at Harrington Beach State Park, I made a series of thirty exposures of just two minutes each. The old lens, precisely focused, produced a remarkably detailed image after processing.

Like the North American nebula, other such targets are also quite large but extremely dim. This lens is ideally suited for such objects. Think of M31 and the nearby California Nebula. Or the vast glowing

regions of IC 1396 in Cepheus and Cassiopeia's Heart Nebula, known as IC 1805. There are many more. So I think this old sports lens has a bright celestial future. - Ernie Mastroianni



The North American and Pelican Nebulas, known as NGC 7000 and IC 5070, are revealed as extensive regions of ionized clouds of hydrogen gas. The field of view extends as wide as nine full moons.



In the field at Harrington Beach, the vintage 300mm lens and an even older 135mm lens track the North American Nebula across the sky.



## December General Meeting

### **NCSF Holiday Party**

Please bring a dish, desert, appetizers to pass.

Beverages will be provided!



### **Annual Board Nominations**

At the December General Meeting each year NCSF completes nominations and has elections for open Board positions and elects new Board Members. This year there are three open Board positions to fill.

### **November Public Viewing Events**

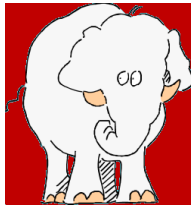
**Harrington beach, Monday November 11th**

**Snowy Mercury Transit** by Mike Borchert

Observing the Mercury transit did not happen at the Harrington Beach Observatory. As I monitored the weather radar, it was evident that bands of snow would continue throughout the transit. I did hear from a fellow club member that a clearing had appeared, just as predicted following the exit of Mercury from the sun. Will have to wait until 2032 for the next one.



### **White Elephant Exchange**



Entertainment at it's very best! Will this be your year to join in? The more the merrier!

A White Elephant gift is something lurking around in your astronomy closet gathering dust or the book shelves loaded with charts and maps?

Or... perhaps, in your travels, you see something funny or yummy, the imagination soars! This is for entertainment and not gain, so we all have a great time

1. Bring an astronomy-themed, wrapped gift!
2. When the gifts arrive we will have numbers attached to them with matching numbers in a hat.
3. One by one, each participant will draw their prize number and open it to the oohs and ahhs of all present.

### **2020 Dues** by Gene DuPree

Your "2020 Dues Invoice" can be printed from the attached pdf file included with the Newsletter or you can download the Dues Invoice from the Club website. Additional copies of the Invoice will be available at the January Membership Meeting.

Sky & Telescope Magazine and Astronomy Magazine are available at a discount with your Club membership.

\* If you have an existing Astronomy Magazine subscription, you are encouraged to renew online when you receive your notice from Kalmbach Publishing. Go to [www.astronomy.com/promo](http://www.astronomy.com/promo). Select 1 year @ \$34.00), 2 years @ \$60.00 or 3 years @ \$85.95. After you click "submit", you will immediately receive a confirmation page that you can print for your records. For questions call customer service at 1-800-533-6644.

**Kalmbach Publishing also offers a reduced price on 2020 Astronomy Calendars for Club Members subscribers. Order by calling customer service at 1-800-533-6644 with promotional code-CAL50.**

\* If you have an existing Sky & Telescope magazine subscription, continue to renew it on your own whenever you receive their standard notice. A club discount rate should automatically be offered when brought to their attention.

## Related Info

### **Leaders for Public Events**

#### **January 18**

Horicon Marsh

Gene & Charlotte DuPree

#### **February 1**

Ice Age Center

Gene & Charlotte DuPree

#### **February 8**

Pike Lake

Gene & Charlotte DuPree

### **Star Parties/Conferences**

#### **NCRAL 2020**

**May 1-2**

Port Washington Country Inn and Suites

Hosted by Northern Cross Science Foundation.



#### **W.O.W.**

(Wisconsin Observers Weekend)

**July 18 -20, 2020**

Hartman Creek State Park

[WWW.new-star.org](http://WWW.new-star.org)



#### **Northwoods**

**August 21-23, 2020**

Hobbs Observatory

Beaver Creek Reserve



## 2019 Board of directors

### President - Jeff Setzer

1418 Trillium CT  
West Bend, WI 53095  
262-338-8614

[astrosetz@hotmail.com](mailto:astrosetz@hotmail.com)

### Vice-President - Joyce Jentges

336 N Main Street, Apt.3  
Cedar Grove, WI 53013  
262 483- 4270

[joycejentges@hotmail.com](mailto:joycejentges@hotmail.com)

### Secretary - Kevin Bert

2292 Ridgewood Road  
Grafton, WI 53024  
262-674-0610

[kevin.bert@hotmail.com](mailto:kevin.bert@hotmail.com)

### Treasurer - Gene DuPree

6219 Jay St.  
Myra, WI 53095  
262-675-0941

[grdupree@charter.net](mailto:grdupree@charter.net)

### Dan Bert - Observatory Director

1517 Green Valley Rd.  
Grafton, WI 53024  
262-357-1973

[dbert64@gmail.com](mailto:dbert64@gmail.com)

### Rick Kazmierski - Newsletter

5327 Cascade Drive  
West Bend, WI 53095  
262-305-1895

[rickkaz@charter.net](mailto:rickkaz@charter.net)

### Mike Borchert

3656 Willow Creek Rd.  
Colgate, WI 53017  
262-628-4098

[gmborchert@charter.net](mailto:gmborchert@charter.net)

## SPECTRUM

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

Con't. from PG-1)

### 4. Clear out your observing area

Is there snow on the ground where you usually set up? Bring a shovel and clear it out, even if there is just an inch or two of the white stuff. Your equipment and toes will thank you.

### 5. Blankets

Did you bring a blanket? Good. Even if you think you won't need one...you very well may want one after the first hour or so, especially if you are seated very still.

### 6. Gloves

Pack your gloves! Some astronomers prefer fingerless gloves that allow them to work on their instruments while outside, while others prefer combo mitten-gloves that allow you to flip the ends of the mittens off for fingerless glove access. Remember, you will be handling lots of cold metal as you set up your equipment in the cold so if you don't want your fingers going numb within minutes, gloves are a must!

### 7. Heat pads

Chemical heating pads are your friend. Stick these little beauties into your gloves and boots to stay warm. Some heating pads now offer rechargeable electrical heating-just make sure they are charged before you leave the house!

### 8. A big goofy hat and earmuffs

A hat with ear flaps? Big fuzzy earmuffs? You will definitely want these! While they may look a bit silly, you will be toasty inside, with nice warm ears rather than frigid lobes in danger of frostbite. Besides, you will be in the dark: who cares what you look like?

### 8. A warm thermos

A thermos full of your favorites warm liquid-hot chocolate, soup, coffee, tea- is your best friend during these long winter nights.

One final thing to remember: however cold you think you are, there is probably someone somewhere else who is in an even colder location...like, say, [an amateur astronomer in Antarctica](#):



With these tips you are sure to have a much warmer and cozier time checking out the beautiful jewels of the winter night. Stay warm, and **Don't Let the Frost Bite!**

(Con't. from PG-2)

Guest attendee Tim Burrus has Horowitz-DeRemer Planetarium raffle tickets available after the meeting.

With no more new business Jeff reminded members that the public viewing schedule is finished for the year. The upcoming events for 2020 start in January with a telescope viewing night on the 18th at Horicon. The Ice Age Center has a Ski and Stars night on February 1st. Pike Lake has a Ski and Stars viewing event on the 8th of February.

To close the meeting Jeff Setzer explained activities at the December meeting. Other than the business meeting the meeting is for the most part a socializing event. Members are asked to bring a dish or treat to pass. Soft drinks, plates and cups will be provided by the club. One optional activity is the white elephant gift exchange. Just bring a gift that has an astronomy related theme. It could be something that didn't sell at your garage sale last summer or something you purchase. We hope all members can attend.

With no further business Jeff closed the meeting at 8:45 pm.

### 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](mailto:rickkaz@charter.net)