

SPECTRUM

Northern Cross Science Foundation Newsletter

June, 2017

Looking Up

June 1, Thursday

General Meeting

7:00 p.m. - Solar Viewing

7:30 p.m. - Main Program

Business Meeting to Follow

June 2 & 3, Friday & Saturday

Public Viewing

8:00 -11:00 p.m.

Harrington Beach

June 3, Saturday

Solar Viewing

9:00 a.m.-1:00 p.m.

Pike Lake Beach, N Shelter

Public Viewing

8:00 -11:00 p.m.

Pike Lake Campground Entr.

June 10, Saturday

Sunday on Saturday

Member Event

See article, Page 3

June 15, Thursday

Board Meeting

7:30 p.m.

House of Jeff Setzer

June 17, Saturday (New)

Treasure of Oz

Solar Viewing

10:00 a.m. – 2:00 p.m.

Harrington Beach

June 30 & July 1, Fri & Sat

Public Viewing

8:00 -11:00 p.m.

Harrington Beach

July 1, Saturday

Public Viewing

8:00 -11:00 p.m.

Pike Lake Campground

Considerations for reserving a night at the Observatory *By Dan Bert*

As the weather warms, more and more of us are inclined to get out and spend an evening under the stars. If you want dark skies our club has just the place as our observing headquarters are located at one of the darkest sites in Ozaukee county, Harrington Beach State Park. For the past 10 years now any member of the NCSF who has been properly trained in how to use the observatory and equipment has the privilege to roll off the roof, uncap the 20" Panarusky and reserve an evening under the stars at the Plunkett observatory. To take advantage of this please consider the following.

Subscribe to and watch the observatory calendar to see what dates are available or in need of help. We have an official google observatory events calendar listing all events, public and private, which can be viewed using the following link:

<https://calendar.google.com/calendar/ical/dbert64%40gmail.com/private-f16fc6eb0250bc541a97cb5f42f152ea/basic.ics>

Please note we have a weekend every month designated as "dark sky time" primarily set aside for the membership to take advantage of the dark time of the month with no moon. Events during this time should remain unadvertised to the public. While the NCSF has a host of public events, we deserve some quiet time as well to engage in our own pursuits separate from the public, campers and the bright headlights and traffic that may bring.

Several important reminders to consider for those using the observatory: mind the 6 turn-buckles when operating the roof, be sure to seat

the primary mirror cover all the way down near the mirror cell (the magnets should grab), take out all trash when you leave and lock doors. For a full rundown there is a easy to follow check list located on wall above the red tool cart. While taking in the heavens above if any issues are encountered with equipment or facilities please report them to the director to get them addressed. Things such as pest or insect issues, building repairs, equipment malfunctions etc. Help undertaking these maintenance duties is always appreciated, look for notices when help is needed on projects or maintenance and consider offering assistance. Thanks to all who have done so in past years. All operators should also have both park office and property manager Ken's contact if needed in emergency. Note the park has recently converted about 70% of the park to dark sky compliant lighting, please pass your thanks onto the park staff for their efforts and our partnership. Long term the goal is to make Harrington an official Dark Sky Park site.

If you have a date in mind to reserve for your evening under the stars it is always best to contact your observatory director to have your night confirmed and then added to the calendar so others are aware of it. In addition to a private evening, please consider in return leading at least one public viewing night event. These are also listed on the NCSF web site as well as the same observatory calendar. Please check out what event you may be able to help with and sign up, without your help the observatory would not be able to provide a window to the universe. Thank you to all who have helped in the past and shared your passion of the night sky.

Library Telescope Update *by Kevin Bert*

The second Library Telescope is being prepared for delivery to the West Bend Library. Thanks to Jeff Setzer a third Orion Star Blast telescope has been donated to the library program. The board of directors will be contacting the Port Washington Library for their approval to reach an even larger area of the population. The Grafton library's telescope has been very successful and it prompted the expansion of the program. Even more Library Telescopes could be possible in the near future and the activity could steer more individuals toward the Northern Cross.



Library Telescope-Orion 4.5" Starblast

May Meeting Minutes

By Kevin Bert

The May 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 8:55pm and reminded attendees that May is the start of the public viewing season. He welcomed 18 members and guests, and then asked for standard reports.

Treasurer Gene Dupree reports \$12,601.81 in the checking account. The Observatory account balance was at \$762.23.

Secretary Kevin Bert reports that final roster contains 46 members and will be included in the June Spectrum. A report of the Astronomical League 2017 Regional Convention in Rochester Minnesota was given by Charlotte Dupree in the May Spectrum.

The Observatory Director Dan Bert reports that some observatory cleaning and maintenance needs to happen before the May 28 Astronomy Day. May 20 is a training/refresher session on how to operate the 20-inch Panarusky telescope.

Ernie Mastroianni informed the membership that three evenings have been set as training opportunities to learn how to use the imaging telescope at the Observatory at Harrington Beach. May 18, 19 and 20. Interested members should contact him.

Jeff Setzer covered upcoming 2017 events. In May. May 28th is Memorial Day weekend and the start of our Astronomy Day. Starting with solar viewing at Port Washington's Street Festival then viewing under the stars at the Observatory at Harrington Beach later that evening. June 2nd and 3rd are Public Viewing Nights at Harrington Beach. June 3rd is the first Pike Lake telescope viewing night. Registration is open for Wisconsin Observers Weekend (WOW) running June 22-25. Only two of the five camp sites at Hartman Creek State Park were reserved for this event so members wishing to attend should register soon because of the limited space.

Kevin Bert recognized Jeff Setzer for his donation of an Orion 4.5-inch Star Blast Library telescope.

With no further business Jeff closed the meeting at 9:25 pm.

After finalizing the membership roster for 2017 the board has updated the observatory

Observatory Plaque by Kevin Bert

After finalizing the membership roster for 2017 the board has updated the observatory plaque that recognizes the Supporting Members that voluntarily pay higher dues to support the activities of the Northern Cross. The board of Directors would like to thank all the supporting members for their generosity toward the club and encourage all members to check out the plaque next time they are out at the Observatory at Harrington Beach.

Jerry Kohlmann Jr.
William Large
Rob Powell
John Raffensparger
Lana Raffensparger
Rich Sauve
Alan Steinberg
Dave Wierzba
Gail Wierzba



Group Effort for Galaxy Image by Ernie Mastroianni

Northern Cross club members gathered at the Plunkett observatory for the first general astrophotography teaching session on May 25. After getting clouded out for three planned nights, an unexpectedly clear evening emerged from what was otherwise a very gloomy month. Ernie Mastroianni led the group effort. Several members brought their own DSLR cameras to learn the many steps necessary to take deep sky photos with the club's five-inch refractor.

Gershan, Jerry Kohlmann, Jim Mazak, Ernie Mastroianni, and Richard Yzaguirre. While shooting deep sky pictures with a DSLR is generally much simpler than using a dedicated astro camera, members still had to master the mount software, learn how a tethered DSLR manages camera settings, and figure out how to properly center and focus on a deep sky object. In addition, finding and focusing on a suitable guide star took far more time than expected. The group also experimented with different exposure times and ISO settings for their off-the-shelf Canon and Nikon cameras.

This photo is a combination of five exposures of five minutes each, processed, aligned and stacked using Nebulosity and Photoshop software. It was taken with a Canon EOS T2i.

While more sessions are not yet scheduled, a followup night would help build on the basic lessons learned on our first outing. If you'd like to participate, please email Ernie Mastroianni at emastroianni@wi.rr.com. I will include you on a mailing list for updates on future astrophotography sessions.



Among those who contributed to this final shot of the showpiece galaxies M81 and M82 were Kevin Bert, Mike Borchert, Bob



June General Meeting

Astronomy 101

Solar Viewing

The June 101 class will consist of viewing the Sun through telescopes in the GSC parking lot. Members are encouraged to bring their scopes and weather permitting, be ready to start observing from 7:00 pm until 7:30pm. The sun spot count has been down as of late. Let's see if any are visible and how they compare in the variety of telescopes and filters. This activity will tie in well with the following eclipse segment and main program.

Main Program

by Kevin Bert

Solar Observing Essentials

As many of us prepare for the upcoming solar eclipse in August the sun is getting more attention as of late. In light of that June's main program will be "Solar Viewing Essentials". Discover some interesting Sun facts and discover the many safe ways to view it.

RELATED INFO

New members



NCSF welcomes;

John & Lana Raffensparger

Leaders for Public Viewing

June 2

Harrington Beach

Leaders Needed

June 3

Harrington Beach

Leaders Needed

June 3

Pike Lake

DuPrees

June 17

Harrington Beach

Leaders Needed

June 30

Harrington Beach

Leaders Needed

July 1

Harrington Beach

Leaders Needed

July 1

Pike Lake

DuPrees



Sun-Day on Saturday

by: Kevin Bert

June 10th is the date set for this year's Sun-Day on Saturday members' event at my home in the town of Grafton. This relaxed setting away from the public gives members a chance to spend time conversing while enjoying the sights of our nearest star. Solar activity is low but there can always be a surprise. This will be another opportunity to view through the Coronado and a variety of the members' sun viewing telescopes. I will give a demonstration on how to set up and operate the club's Coronado for those that are interested in using it in the future, at 2:30. The event will start at 2:00 pm and you can park on the lawn as in other years to set up your own telescopes any time after 2:00 pm.

This is a member's family event that combines leisurely solar viewing with a picnic type atmosphere. I will provide soft drinks and snacks throughout the day. Feel free to come and go as you please, as we will view into the evening if there is an interest. Those that plan to be here at 5:00 pm. and would like to stay and eat should bring a dish to pass. I will provide soft drinks and your choice of sloppy Joes or brats. Please bring a lawn chair too.

If it is raining, the event will be cancelled. If cloudy, you can still come to eat and talk astronomy as I will still give the Coronado demo. My address is on the back cover of the Spectrum. If in doubt of conditions or in need of directions, call me at 262-674-0610. I hope to see you there.

Astronomy Day (Port Washington Street Festival)



Star Parties

WOW

June 22 -25

Hartman Creek State Park

WWW.new-star.org

Northwoods

August 25 -27

Hobbs Observatory

Beaver Creek Reserve

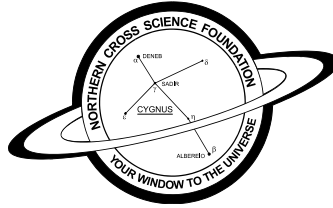
Fall Creek, WI.



Membership Roster

Our Clubs Membership Roster for 2017 is included in this issue of the Spectrum. Please check your information for accuracy and contact Kevin Bert "kevin.bert@hotmail.com" with any corrections.

SPECTRUM
5327 Cascade Drive
West Bend, WI 53095



**Jim & Gwen Plunkett
OBSERVATORY**



2017 Board of Directors

President - Jeff Setzer
1418 Trillium CT
West Bend, WI 53095
262-338-8614
astrosetz@hotmail.com

Vice-President - Joyce Jentges
336 N Main Street, Apt.3
Cedar Grove, WI 53013
262 483- 4270
joycejentges@hotmail.com

Secretary - Kevin Bert
2292 Ridgewood Road
Grafton, WI 53024
262-674-0610
kevin.bert@hotmail.com

Treasurer - Gene DuPree
6219 Jay St.
Myra, WI 53095
262-675-0941
grdupree@charter.net

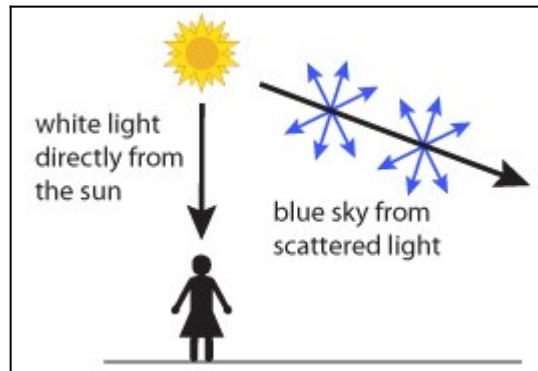
Dan Bert - Observatory Director
262-357-1973
1517 Green Valley Rd.
Grafton, WI 53024
dbert64@gmail.com

Rick Kazmierski - Newsletter
262-305-1895
5327 Cascade Drive
West Bend, WI 53095
rickkaz@charter.net

Why is the Sky Blue?

The blue color of the sky is due to Rayleigh scattering. As light moves through the atmosphere, most of the longer wavelengths pass straight through. Little of the red, orange and yellow light is affected by the air.

However, much of the shorter wavelength light is absorbed by the gas molecules. The absorbed blue light is then radi-



ated in different directions. It gets scattered all around the sky. Whichever direction you look, some of this scattered blue light reaches you. Since you see the blue light from everywhere overhead, the sky looks blue.

For additional information, see the following website at:
http://www.sciencemadesimple.com/sky_blue.html

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:
rickkaz@charter.net