

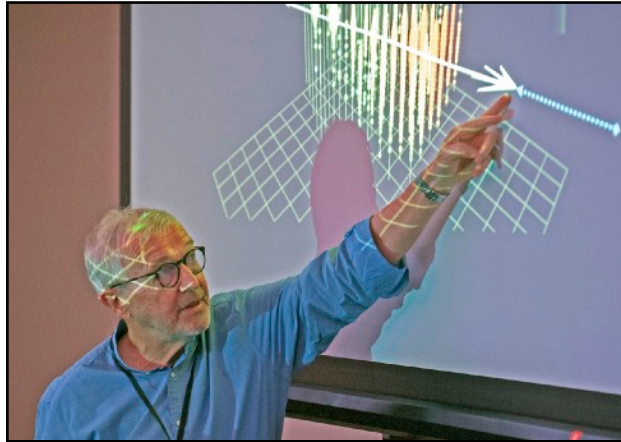
# SPECTRUM

Northern Cross Science Foundation

June 2022

## NCRAL Meeting Informative, Well-attended, Successful

After a two-year COVID delay, the [NCRAL](#) convention was finally held last month. Nearly 70 people, including speakers, registered to attend the conference at the Country Inn & Suites in Port Washington on May 13-14. The Northern Cross Science Foundation was well-represented, with 18 club members and family signed up for the event.



The presentation by keynote speaker Francis Halzen was the main event on Saturday night. Halzen, a University of Wisconsin theorist, is the principal investigator of the [IceCube Neutrino Observatory](#), a massive instrument based at the geographic South Pole. It uses 5,160 detectors frozen into a cubic kilometer of south pole ice to detect extra-galactic neutrinos. It's been online since 2010 and has generated [hundreds](#) of scientific papers and publications since then.

NCSF Board member Kevin Bert was the lead-off speaker, [See page 2](#)

*Clockwise from top left: Francis Halzen explains results from the IceCube neutrino detector; Jeff Setzer introduces a speaker; Jean Napp of the Iowa County Astronomers views the moon at the Plunkett Observatory; the group listens to Halzen during the Saturday banquet. Ernie Mastroianni photos*

### Astro Bob Featured Speaker



The June 2 general meeting will have a very special guest speaker: Bob King (aka Astro Bob), an author, and a columnist for *Sky&Telescope*.

His topic: "New Frontiers In Naked Eye Astronomy". King was scheduled to make this presentation for the NCRAL 2022 convention, but was unable to join us due to a family emergency. Join us for this engaging talk. - *Joyce Jentges*

### May 5, 2022 General Meeting Minutes

- Jeff Setzer opened the May general meeting with 19 members in attendance.
- Jeff Kanipe was the featured speaker. His presentation topic was on peculiar galaxies.
- Gene DuPree reported that there was \$12,965.45 in the general account. Setzer reported that there was an additional \$8270.18 in the PayPal account. He noted that most of the PayPal monies were earmarked for the NCRAL convention.
- Mike Borchert reported that the NCSF membership roster was updated and sent to the Astronomical League. A discrepancy on Jim Macak's address was noted and Borchert mentioned that he was working on it. [See page 4](#)

### Looking Ahead

**Thursday, June 2  
General Meeting**  
via Zoom, 7:30 pm

**Saturday, June 4, 8-11 pm**  
Pike Lake Unit - Kettle  
Moraine State Forest

**June 23-26  
Wisconsin Observers  
Weekend (WOW)**  
Hartman Creek State Park  
Waupaca, Wis.

*More events listed on page 4*

## NCRAL VISION 2022 Conference: Two Days of Speakers, Activities

From page 1 with a presentation on the history of the [Library Telescope Program](#). He also held a hands-on workshop on the assembly of the Orion Starblast 4.5 inch table-top Dobsonian telescopes.

Setzer also gave a brief presentation on his design of a 3-D printed smart phone eyepiece adapter that allows viewers to make quick photos through a telescope without the lengthy task of locking into the adapter.

Lynda Schweikert, a self-proclaimed novice astronomer from the [Iowa County \(Wisconsin\) Astronomers](#), gave an enthusiastic presentation about how her club welcomes members with all levels of astronomy skill, all with a very laid-back attitude about organization.

[Dennis Roscoe](#), a neurophysiologist as well as an astronomy instructor at the University of Wisconsin-Waukesha campus, spoke primarily about the [James Webb](#) and the Vera Rubin telescopes. On the subject of the Webb, he said "it's made it through the tough stuff and is nearing fully commissioned operation." He updated us on the ground-based [Vera Rubin telescope](#), in north-central Chile and the [Giant Magellan Telescope](#), a ground-based colossus that will have seven mirrors, each which will be nearly 8.4 meters across.

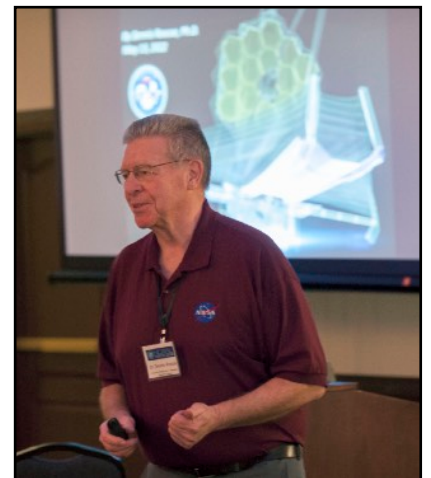
That evening, a many attendees drove north to Harrington Beach State Park to see the Plunkett Observatory and the Panarusky telescope. Although the sky was hazy with approaching storm clouds, the views of the nearly full moon

See page 3

*Lightning illuminated distant thunderheads as NCRAL members visit the Plunkett Observatory at Harrington Beach State Park on May 13.*



*Allen Zielieke, of the Sheboygan Astronomical Society, views the moon through the Panarusky telescope.*



**Above:** Speakers Dennis Roscoe and Lynda Schweikert.

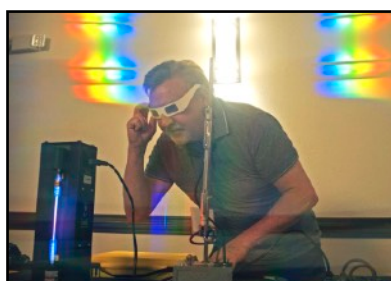
**Left:** Charlotte and Gene DuPree hand out door prizes.





**Left:** The NCRAL convention attendees get together for a group photo at the Country Inn & Suites in Port Washington on May 14.

**Below:** Dave Prosper, of the Astronomical Society of the Pacific, outlined the rich variety of presentations and activities offered by the Night Sky Network.



**Above:** Jim DeLillo of the NCSF looks through spectrum glasses before John Friedman's talk. The photo was taken through the same type of glasses.

**Left:** Barry Beaman of the Rockford club and David Philabaum, of the Southeast Iowa club, assemble a library scope.



From page 2 were spectacular. Among the members attending were Ernie Mastroianni, Don Woelz, Gene DuPree, and Katy Zens. A fly-over by the ISS and a distant lightning show made for a spectacular evening.

On Saturday, UW-Green Bay physicist William Dirienzo gave a thorough presentation on the nature of light waves and how the electromagnetic spectrum is observed with different kinds of instruments. universe.

He was followed by UWM professor emeritus [John Friedman](#), who handed out special spectrum glasses that spread out light much like a prism. Friedman explained how the study of emission spectra helps us better understand the composition of stars.

Outreach experts Kate Meredith and Dave Prosper expounded on the myriad ways that

astronomy outreach can connect with people and deliver astronomy education kits. Meredith is president of [Geneva Lake Astrophysics and STEAM \(GLAS\)](#).

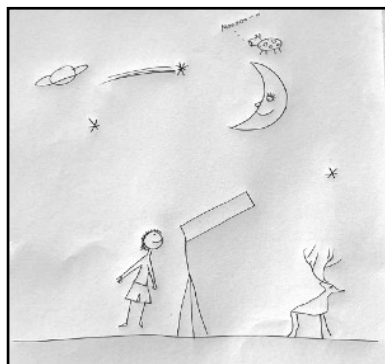
[Dave Prosper](#), of the Astronomical Society of the Pacific, told of the many presentations, science kits and online resources that are available to amateur astronomy groups through the [Night Sky Network](#).

Alison Klesman, a senior editor at *Astronomy* magazine, explained to the conference how studying the same objects in different

wavelengths of the electromagnetic spectrum can bring larger insights to the structure of the universe.

She earned her Ph.D from the University of Florida studying supermassive black holes in galaxy clusters.

- Ernie Mastroianni



NCSF members Mariah Kazmierski and Mike Borchert won the sketching and deep sky photography categories in the NCRAL convention's illustration contest.



## May General Meeting Minutes

membership information was in error on the roster that was sent along with the May newsletter, please contact either Setzer or Borchert to set the record straight.

Ernie Mastroianni reported that the Celestron WiFi dongle had been installed on the Celestron CGE Pro mount. It will enable the 5" refractor at the observatory to be operated via a smart phone. Ernie suggested users download the free Celestron SkyPortal software to connect. Although Mastroianni tested it during the day, it seemed to track and do most of the necessary functions needed to control the 5". As more users log on, we should get more reports on how it is working.



The new WiFi dongle (top photo) allows control by smart phone. Mastroianni installed it during the observatory cleanup.

The shrubbery on the outside was trimmed, and the pathways trimmed and swept. The usual light coating of oil on the 20" scope and other annual maintenance was NOT done. But the observatory should be in good shape for the NCRAL tours, should the weather cooperate.

NCRAL is a week from tomorrow, May 13 & 14, Friday and Saturday. Setzer reported that most of the work had been done, as much as could be prior to the convention. Katy Zens asked what jobs the volunteers were lined up to do. Setzer responded at this time it will be on an "as needed" basis. Jeff mentioned that he hoped all club members could enjoy the experience.

The first outdoor public club event was held at Pike Lake May 7th, 8-11 pm. All club members were invited to attend, share their scopes, and help out generally. Gene and Charlotte DuPree led the public event. Observing takes place near Powder Hill Road, near the camp dump, on the road to the campground. Set up is usually around 7:30, and includes helping the public with general astronomy and scope questions.

The NCRAL committee reports that onsite registration will begin at 10 am, Friday morning at the Country Inn & Suites in Port Washington. At this point we have 67 attendees. Mastroianni is the photographer. Vendors are still welcome (please contact Setzer with vendor updates). Registration is not



Mike Borchert and Marilyn Mastroianni work on the observatory.

closed. T-shirts may have another round of ordering in the future, only if you can pick them up yourselves.

- There will be NO public observing at the Harrington Beach State Park Plunkett observatory in June.
- The club is still looking for a public location for in-person monthly meetings. If club members have any ideas, please do not hesitate to contact any of the board members. Their contact information is in the newsletter, or get in touch with them online through Slack. Rob Powell was going to follow up with information concerning teaming up at the Mequon Nature Conservatory. The club left their last location as dues were raised to at least \$100 a month. Gwen Plunkett had paid the dues then at that time. A monthly meeting fee would be considered by the board. The 2024 total eclipse of the sun is being planned by NCSF members. You cannot start too soon. At this time the location for club members seems to be near Buchanan Lake, Texas, at a local campground. One of the key considerations are clouds, as it will be April 8th.

- Solar viewing is on the upswing as the sun heads into a more active period. Club members suggested following Brian Champion on Facebook as a good source of information. The meeting was adjourned. These minutes are submitted for updates and corrections. Please let me know - [Mike Borchert](mailto:MikeBorchert@gmail.com) [gmborchert@gmail.com](mailto:gmborchert@gmail.com)

### Public viewing schedule

#### Harrington Beach

Friday, July 8: 8:00 – 11:00pm

#### Pike Lake Telescope Viewing

Saturday, July 9: 8:00 – 11:00pm  
3544 Kettle Moraine Rd,  
Hartford, WI 53027

#### Harrington Beach

Saturday, July 9: 8:00 – 11:00pm

June 23-26

**Wisconsin Observers Weekend 2022**  
Hartman Creek State Park, Waupaca  
Hosted by the Northeast Wisconsin  
Stargazers (NEWSTAR)  
More info and registration at [this link](#).

July 24-29

**Nebraska Star Party 2022**  
Merritt Reservoir Snake Campground  
Near Valentine, Nebraska  
More info and registration:  
<https://www.nebraskastarparty.org/>.

August 26-28

**Northwoods Starfest 2022**  
Hobbs Observatory in at Beaver Creek  
Reserve in Fall Creek, WI  
Hosted by the Chippewa Valley  
Astronomical Society  
More info and registration at [this link](#).

## Observing Report



## Clear Skies for Eclipse



These are iPhone 13 mini photos from the evening of the Flower Moon eclipse on May 15, either unaided (showing the StarLink streak) or placed on my Mag1 Instruments 12.5" Portaball with a 35mm Televue Panoptic. It was a terrific night. Three families came out and brought their children. We looked through binoculars and the telescope.

We had a bit of a rough start with the moon low in the southeastern sky until after 10 pm. Facing north, we saw a line of StarLink satellites. It was weird. It seemed like we were looking at them from the end of the array (like they were going north on a diagonal), rather than the side (like they were traveling east — as we've seen them before). As a bonus, the International Space Station made an appearance too. - *Jerry Kohlmann*

## Cloudy for Plunkett Opener

The first public observing night of 2022 at Harrington Beach State Park was scheduled for Friday, May 20th. The weather forecast was for 100% cloudy skies and, unfortunately, the forecast turned out to be 100% accurate.

Gene Dupree and I found the observatory to be in excellent shape. I offer our thanks to the cleaning crew! We opened the observatory but didn't bother to roll off the roof or perform any other setup. Around the scheduled 9:00 PM start time, we did have a group of three people stop by who were camping that night. They were quite enthusiastic but there wasn't any observing to be had. We did give them a tour of the observatory and invited them to return for the future scheduled events at both Harrington and Pike Lake. They stated they would be sure to come back later this summer.

The skies remained completely clouded over while Gene and I waited for about another hour. However, nobody else came by, so we closed up for the night.

- *Jim Macak*

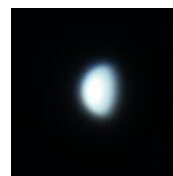
## Chasing Planets in Daylight

While observing sunspots last month from my backyard, I realized that Venus, Jupiter and Mars were nearby. Would all three be visible through the telescope at 10 a.m.? The weather was dry and clear, so I gave it a try. My Questar telescope is old-school, a model first produced in 1954 and essentially unchanged since then. With an aperture of 3.5 inches, it is no light bucket, but the optics are first-rate and the setting circles are accurate.

By pointing the leveled mount due north (paving stones set in my lawn allow accurate placement) then calibrating right ascension and declination on the sun, I was able to dial in Venus through the viewfinder.

It was a bit off-center, but knowing the error, I could make adjustments when I dialed in Jupiter. It was clearly visible in the low power field, showing two obvious but low-contrast bands. Mars was not immediately in the eyepiece, but some careful panning brought it into view, as a dim and tiny oblong disk that clearly matched its current phase.

- *Ernie Mastroianni*



*Jupiter and Venus as they appeared during the day on May 12, as photographed through a Questar 3.5. The relative sizes are accurate. Mars was not photographed. Ernie Mastroianni photos.*

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NCSF is a member of the [North-Central Region of the Astronomical League](#).



NCSF supports the [International Dark Sky Association](#)

**Imaging Report**

**Whirlpool Galaxy** - NCSF board member and avid astrophotographer Don Woelz had his first go last month at using the club's 5" refractor at the Plunkett Observatory. His plan was to shoot the galaxy M-51 in Canes Venatici. Woelz used his own computer, astrocamera and software in combination with the club's scope to shoot this highly detailed photo. Interested in learning how to use this telescope for astrophotography? Contact *Spectrum* editor Ernie Mastroianni to schedule a one-on-one session. You can use your own DSLR, but the club also has a dedicated astrocamera for club member use. But be warned, the learning curve can be quite steep. - *Ernie Mastroianni*

**Looking for a Night Sky Network Coordinator**

If you attended the NCRAL conference, you heard Dave Prosper speak about NASA's [Night Sky Network](#) (NSN), an organization that offers vast resources to astronomy clubs to assist in public outreach. The NCSF is actively looking for a club member who could coordinate our club's activities with the NSN.

Your job would be to post our club's volunteer hours and outreach activities to the NSN website. As our club demonstrates public outreach through these hours, NASA then contributes [programs, presentations and any associated hardware](#) for our use to educate the public about astronomy and space exploration. Our club's events would then be posted on the [NSN's national calendar](#) for other clubs and the general public to see. If you're interested, visit <https://nightsky.jpl.nasa.gov> and let a board member know. We'll be happy to help you get started. - *Mike Borchert*

**Spectrum newsletter**

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<https://ncsf.info>

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