

SPECTRUM

Northern Cross Science Foundation Newsletter

July 2022



Pelican Nebula - NCSF board member **Rick Kazmeirski** recently took this photo of the Pelican Nebula, also known as IC5070. It's located near the well-known North American Nebula in Cygnus. Kazmeirski used a William Optics 105mm Zenithstar APO refractor. A total of 30 exposures of three minutes each makes up this highly-detailed rendition, which is tipped 90 degrees clockwise from the way it is typically shown. See more member images on page 4. - Ernie Mastroianni

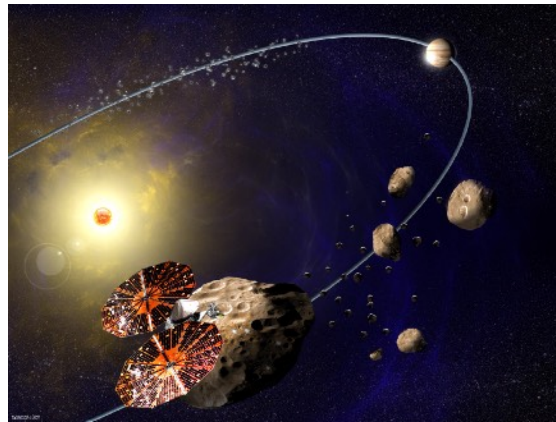
July General Meeting Presentation

LUCY: a Journey to the Fossils of our Solar System

Solar system Ambassador [Mark V Baker](#), who is president of the Temecula Valley Astronomers, will present this month's General Meeting main presentation.

NASA is sending a mission to the ancient asteroids known as the Jupiter trojans. These objects date to the solar system's earliest days and mission researchers hope they may offer clues to how our solar system came to be.

The mission, named [LUCY](#), is in honor of the fossils of our human ancestors found in Ethiopia.



June 2, 2022 General Meeting Minutes

- Jeff Setzer opened the May general meeting with 17 members in attendance.
- Bob King was the featured speaker. His presentation was Naked Eye Observing. He has a blog, [Astro Bob](#). The presentation was well received, discussion and questions followed the presentation. The meeting was

recorded. Jeff will give a link to that recording on the NCSF's Slack channel under General.

- After the presentation, the business meeting took place.
- The hunt for a new location for in person meeting is now the prime focus, as a very successful NCRAL is

..... *See page 2*

Looking Ahead

**Thursday, July 7
General Meeting**
via Zoom, 7:30 pm

Harrington Beach
Friday, July 8 8:00 – 11:00pm
Leaders: Jeff S. and Don W.

Pike Lake Telescope Viewing
Saturday, July 9 8 to 11 pm
3544 Kettle Moraine Rd,
Hartford, WI 53027

Harrington Beach
Saturday, July 9, 8 to 11 pm
Mike B. and Ernie M.

Pike River Starfest
July 27-31, Amberg, Wis.
Contact Gerry Kocken
920-676-3636

Clear, hot nights for the Wisconsin Observers Weekend

Several NCSF members attended the Wisconsin Observers Weekend star party late last month, including Jef Setzer, Joyce Jentges, Kevin and Kathy Bert, David Schenk, and Mark and Cathy Zellner.

From Charlotte DuPree: Gene and I arrived early in the week at Hartman Creek State Park on Monday June 20. We brought our 18-inch Obsession telescope and looked at the usual summer objects.

The first four nights were practically perfect for us. For guidance, we used Michael Bakich's book *1001 Celestial Wonders to See Before You Die*, and found around 70 of the June, July, and May objects.

The globular cluster M5 in Serpens was the first object for everyone to see around 9:30. Friday was cloudy, and Saturday was mostly cloudy. - *Charlotte DuPree*



Scopes large and small fill the lot for WOW on June 23-26 at Hartman Creek State Park near Waupaca. Charlotte DuPree photo. **Below:** Gene and Charlotte DuPree, Joyce Jentges, and Carol Nelson enjoy a meal.



A wide variety of telescopes are set up prior to one of the many clear evenings early in the week. Jeff Setzer photos.

June General Meeting Minutes

From page 1 history. Any suggestions on a location, please let the board know. Since we are still in the brainstorming part of the search, all ideas will be considered.

- Observing was at Pike Lake this weekend, see the schedule on our calendar at <https://ncsf.info/upcoming-events/>
- No public observing was at Harrington Beach State Park in June.
- WOW, Wisconsin Observer's Weekend was June 23-26 at Hartman Creek State Park, Waupaca Wi. The cost was \$25 per person.

- Discussion turned to the Porpoise nebula Jim Delillo was using for his Zoom meeting background. Jim uses online Telescope Data for such images. Jeff Setzer mentioned that that would be a perfect subject for a future meeting presentation.
 - Jim had also volunteered to be the Night Sky Network coordinator for the club. Let's thank Jim for his contribution, and make his job easier by including him on reports for any statistics for future club events. He will use those statistics for providing NASA the intensity of our outreach program. In return, NASA will provide ideas and hardware for future outreach programs.
 - The meeting was adjourned.
- *Mike Borchert, Secretary*

As Black as Night

By Jim DeLillo

Well, relatively speaking. Depending on where you live or observe, the degree of darkness may change. Being close to city centers will flood the sky with light.

The Bortle scale is a nine-level numeric scale that measures the night sky's brightness of a particular location. We owe this measurement of the darkness of an observing site to John E. Bortle, who published the scale for Sky & Telescope magazine in 2001.

The scale ranges from the darkest skies available on Earth rated as Class 1, and the overwhelming lights of the inner cities at Class 9.

At level 9, the Pleiades is the only visible Messier object.

Fortunately, [TelescopeLive](#) observatories are located at some of the darkest sites on the planet.

While we don't have to worry about the darkness for our [TelescopeLive](#) observations, it is best to become familiar with the definitions and limitations of the Bortle Scale as we make our way around the world looking for our familiar constellations and naked-eye objects.

See these interactive dark skies maps:

<https://www.lightpollutionmap.info>

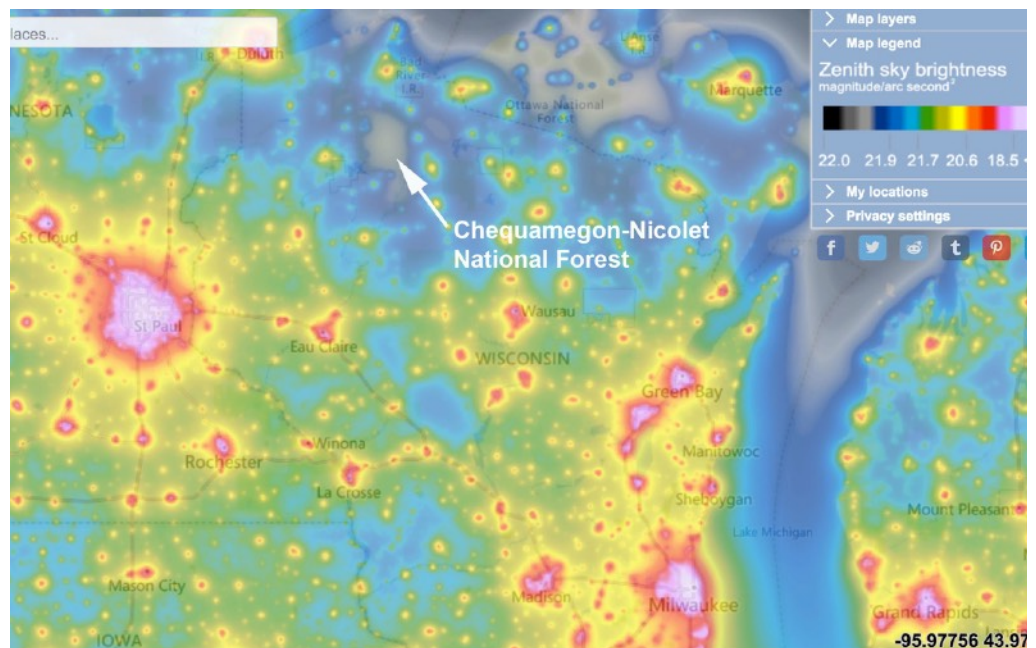
<https://darksitefinder.com/>

And the [International Dark Sky Association](#) promotes the conservation and education of the importance of keeping our skies dark to appreciate the wonders of the night sky.

The Bortle scale classifications

- 1 Excellent dark-sky site
- 2 Typical truly dark site
- 3 Rural sky
- 4 Rural/suburban transition
- 5 Suburban sky
- 6 Bright suburban sky
- 7 Suburban/urban transition
- 8 City sky
- 9 Inner-city sky

A frame grab from [lightpollutionmap.info](#) quickly shows the darkest skies anywhere in the world. Zooming into Wisconsin, it's quite clear that the Chequamegon-Nicolet National Forest (the label was added) is the state's darkest night sky. An additional click will show the area is classified as Bortle 2.



Webb telescope event will show first science images

I would like to invite you to share and attend a special event. You may have heard that the first images from the James Webb Space Telescope will be released on July 12. Please join me at the [Horwitz-DeRemer Planetarium](#) at the Retzer Nature Center in Waukesha on that day. I will be participating in the festivities with a presentation at 11:30 and children's crafts at 12:30. - **Joyce Jentges**

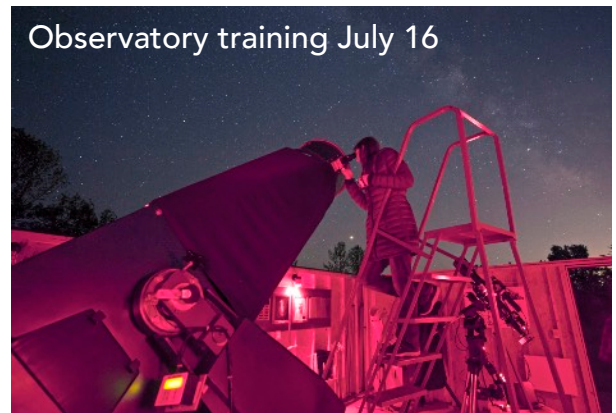
If you can't make it to the planetarium, NASA will stream the Webb event live, according to this [NASA news release](#):

We're counting down to the release of the Webb Telescope's first full-color images and spectroscopic data during a broadcast beginning at 10:30 a.m. EDT on Tuesday, July 12.

10:30 a.m. – Live coverage of the image release broadcast will air on NASA TV, the NASA app, and the agency's [website](#). The public also can watch live on [Facebook](#), [Twitter](#), [YouTube](#), [Twitch](#), and [Daily Motion](#).

12 p.m. – Following the live broadcast, NASA and its partners will hold a joint media briefing at NASA Goddard. The briefing will livestream on NASA TV, the NASA app, and the agency's [website](#).

Observatory training July 16



There will be a training night at the Plunkett observatory July 16th at 8 pm. Mark your calendars and learn how to operate the observatory and Panarusky telescope. Kevin Bert will lead. It is encouraging to get all the emails from members on interest in the observatory. It's great to have such a facility to share our hobby of astronomy. Thanks and clear skies! - Dan Bert

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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



Some exceptionally clear nights in late June were prime imaging opportunities for members Don Woelz and Rick Sell.

Above: Woelz shot the Crescent Nebula in Cygnus with a 6-inch iOptron Richey-Chretien telescope for a total time of 3 hours and 18 minutes and captured extensive background nebulosity.

Right: Sell's image of the Dumbbell Nebula was taken through his 11-inch Schmidt-Cassegrain using 100 minutes of self-stacking video. Both images were taken through Optolong L-eNhanse filters.



Spectrum newsletter

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