

SPECTRUM

Northern Cross Science Foundation Newsletter

July 2023



Cygnus Showpiece - Don Woelz collected 4 hours of ancient photons from the **Crescent Nebula (NGC6888)** on June 19 using a ZWO ASI071MC camera with an Optolong L-eXtreme filter, an iOptron RC6 telescope, and a SkyWatcher EQ6 Pro mount. Conditions were very good: no moon and very little smoke. This nebula lies near Sadr, the central star in the constellation Cygnus.

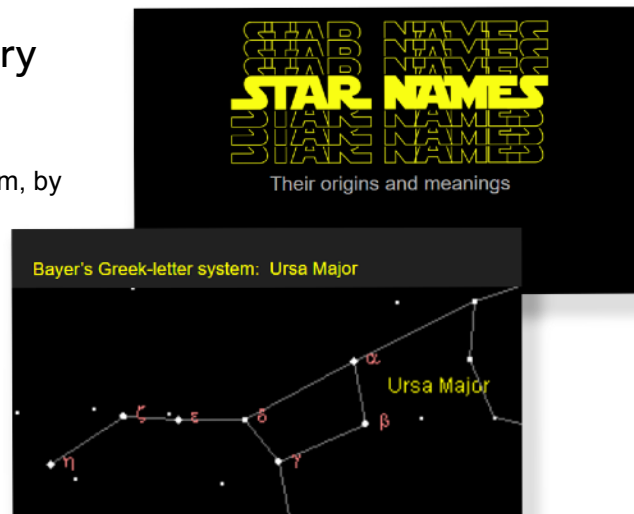
Star Names: A History and Explanation

July Program

This month's program, by Jim Hahn, covers star names and

the history behind the familiar monikers recognized by stargazers. He'll start by explaining how we ended up with the constellations and how they got their names.

He'll also explain how star names came about, and how stars types are designated.



June General Meeting Minutes

The general meeting for June started at 6 pm at the Jackson Community Center with open time for socializing.

At 6:30, with about 15 members present, Jeff called the official meeting to order. The format of June's meeting was to be a show-and-tell session, with members demonstrating and discussing various astronomy-related tools, gadgets, and websites.

Mike Potter started off with a solar eclipse discussion. He demonstrated the software he used, along with his camera, to automatically take pictures of the 2017 solar eclipse from beginning to end. Mike also discussed the upcoming 2024 eclipse, showing various websites and software products to determine how a Texas site may be statistically better than one further north. Mike discussed some of the

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Coming Up

General Meeting

Thursday, July 6, 6pm
[Jackson Community Center](#)
N165 W20330 Hickory Lane
Jackson, WI 5303

Public Viewing

July 15, Pike Lake, 8-11 pm
July 21 & 22, Harrington
Beach, 8-11 pm

Volunteers Needed!

Contact observatory director
Dan Bert
(dbert64@gmail.com)

[Northwoods Starfest 2023](#)

August 18-20, 2023
Hobbs Observatory
Beaver Creek Reserve
Fall Creek, Wisconsin
Adults (13 and over) \$95 (on
or before 8/4/2023),
\$105 after.
Children (5 through 12) \$75

More events on page 2

Public Viewing Nights for 2023

Hello NCSF members, we are in need of volunteers to help at the Jim & Gwen Plunkett Observatory for the weekend of July 21 & 22 from 8 to 11pm.

If you are available to lead or assist with this event please consider helping out this weekend and share your passion of the night sky with the campers and park visitors. - Contact observatory director Dan Bert (dbert64@gmail.com) or any board member to sign up.

- July 15, Pike Lake, 8-11 pm
- July 21 & 22, Harrington Beach, 8-11 pm
- August 12, Pike Lake, Public, 8-11 pm
- August 25 only, Harrington Beach, 8-11 pm
- August 26, Ice Age Center, 7-11 pm
- September 9, Family Night, Pike Lake Beach area, 6-9
- September 8 & 9, Harrington Beach, 8-11 pm
- September 9, Pike Lake, 8-11 pm
- September 16, Pike Lake, 8-11 pm
- October 20 & 21, Harrington Beach, 8-11 pm
- October 21, Pike Lake, 8-11 pm



PikeLake Solar Viewing - NCSF members brought telescopes to the Pike Lake state forest on June 3 from 1 to 4. Many solar scopes of different size types were on hand for viewers. The sun and weather cooperated with lots of sunspots and some prominences. About 125 visitors were amazed by the views. Attending were Gene and Charlotte DuPree, Al Steinberg, Rick Sell and Mark Zellner. **On June 23**, more solar viewing was on hand for those who came for the the Pike Lake fish fry. The DuPrees, Mark Zellner, Al Steinberg, and Rick and Susan and Rick Sell set up scopes for about 100 people. Gene DuPree photo.

June Meeting Minutes

From page 1 lessons learned from the earlier eclipse that could be applied to the one on April 8, 2024. Mike also showed some very nice photos of the 2017 eclipse.

Next, Tim Burrus showed how a very simple golfing bag could be turned into a telescope/binocular/tripod travel tool. The hard-shell bag, which can be found at sources such as Goodwill, online sites, and rummage sales, can make an excellent way to protect astronomy gear when padding is added. The wheels make them easy to move. It is also possible to ship them in the cargo hold of any passenger plane.

Mike Borchert discussed the internet site [Cloudy Nights](#) which he used to purchase a telescope and also finds reviews of products and a forum section in which he can ask questions and find information on observing, photography, and gear

Jeff Setzer discussed [Astrospheric](#), one of his favorite sites. It is an app and website that offers detailed weather predictions especially for stargazers. Jeff talked about the smoke feature, a new introduction to the app. It integrates any smoke issues into the seeing function of the app.

The app is free, the professional version is \$2.99 a month or \$29.99 a year.

Don Woelz discussed a few channels that he has found useful over the years on YouTube. The authors he cites include [Adam Block](#), [Anton Petrov](#), [Cuiv the Lazy Geek](#), [Deep Sky Videos](#), [Nebula Photos](#), and [Ed Ting](#). The information from those channels touch on a wide range of astronomy topics. These channels and some information about them have be re-posted on the NCSF Slack general channel. Note that all posts on our Slack site last only 90 days.

Any further questions on the presented subjects can be asked using the Slack general channel or maybe even a more appropriate channel as you see it.

Jeff discussed some of the forthcoming public events, focusing on WOW (which ended up being adversely affected by the smoke from wildfires in Canada).

With that the meeting was adjourned.

These minutes are submitted by secretary Mike Borchert for corrections, additions, and updates.

WOW Gathering - Jeff Setzer and Gene Dupree (at right) talk to other attendees at the Wisconsin Observing Weekend at Hartmann Creek State Park near Waupaca on June 14. The event was largely smoked out due to excessive smoke from the Canada wildfires. Charlotte DuPree photo.



Bolide witnessed after a smoky observing session

By Jim Macak

Lured by a highly favorable mid-week [Astrospheric](#) forecast for Friday night (June 16), I made plans for some telescope observing at Harrington Beach State Park. Unfortunately, the observing outlook deteriorated drastically once forest fire smoke was factored into the Astrospheric forecast, with the transparency prediction dropping from “Above Average” to “Below Average.”

Nevertheless, I persisted with my plans and set up my telescope in the HBSP parking lot by our observatory. Lamentably, the updated Astrospheric forecast turned out to be accurate and my attempt at observing deep sky objects was severely compromised by the smoke in the atmosphere.

I started to pack up my gear about 1:15 AM. Not long afterwards, I was very surprised to see a sudden and very brief brightening of the sky which seemed to be originating from the south. It was like when a close and strong inter-cloud lightning bolt lights up most of the sky during a nighttime thunderstorm. My first thought was “That’s weird, how can there be bright headlights from a car coming from that direction?”

I quickly turned to look at the southern sky. The flash had already disappeared but I did briefly see a fireball at about 40° altitude that almost immediately shed two or three fragments. I did not notice any smoke trail. I listened closely but heard no sound from this event.

I quickly realized that I had witnessed a bolide! As defined by the [American Meteor Society FAQ page](#), “A bolide is a special type of fireball which explodes in a bright terminal flash at its end, often with visible fragmentation.”

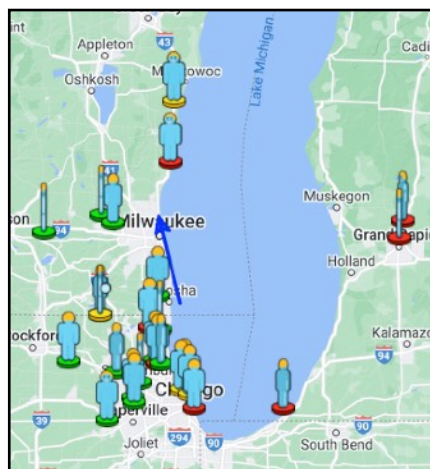
Thus, the flash in the sky was caused by the explosion of a meteor and I directly observed the end of the event in the form of a brief fireball and its fragmentation!

I was taken aback by this event and unfortunately it did not occur to me to note the exact time of my observation. Thinking about it as I was driving home, my best guess was that it occurred about 1:30 AM, plus or minus 10 minutes.

Saturday morning and evening and again on Sunday morning I scoured the local online media for reports of a bolide but found nothing. However, on Sunday evening I found online reports of the fireball on the American Meteor Society website. Here’s the link to the report page: https://ams.imo.net/members/imo_view/event/2023/3056 (You should definitely check out the report page. It’s pretty cool!)



Copyright by Jon Mazur



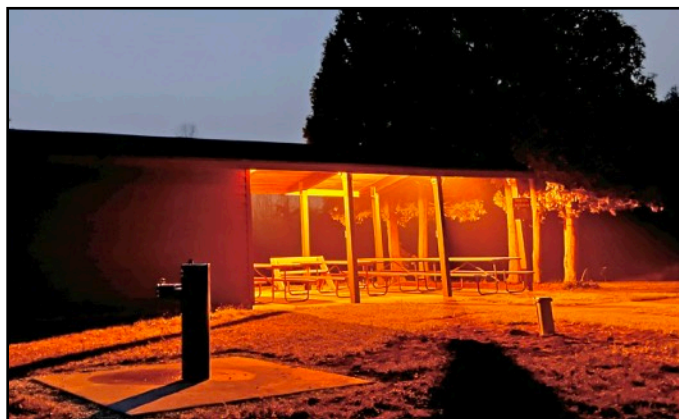
Above: The bolide triggered a Nest camera at the home of Jon Mazur in Kenosha. Mazur uploaded the video to the American Meteor Society website after seeing social media reports about an explosion that rattled nearby houses.

Left: The AMS page maps the locations of witness reports from which an estimate of the bolide’s direction and place could be determined (blue arrow).

The reports on that web page center around 1:25 AM, which coincides well with my time estimate and with what I saw. The observation locations range from a bit south of Manitowoc to the north, mid-Illinois to the south, central Michigan to the east and Madison to the west.

Reflecting on this experience, I believe that the smoke in the atmosphere may have actually increased the scattering of the light flash of the bolide, making the sky illumination from the explosion all the more impressive.

So I guess that a smoke-filled sky can, under rare circumstances, be advantageous!



Turn Off The Lights! - The bright orange lights in the picnic shelter next to the Plunkett Observatory at Harrington Beach should normally be off, **unless** the shelter is in active use. But occasionally, the lights remain on and the glare interferes with stargazers in the observatory and parking lot. NCSF president Jeff Setzer says a request for a light switch “is in the works”, much like the current switch for the exterior lights on the nearby bathrooms. But until a switch is installed, the shelter lights can be turned off at the locked breaker box mounted outside the bathroom. A key to open this box is inside the observatory.

- Ernie Mastroianni

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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

First Light - Don Woelz (left) and Mike Borchert photographed the waxing moon last week through the club's 5" refractor with a new-in-the-box [QHY 168c](#) astrocamera. It was acquired from the estate of Rick Kazmierski by the NCSF Board Of Directors. The one-shot color camera will be available to NCSF members who want to try astrophotography. To learn more about using the camera, send an email to ernie.mastroianni@gmail.com.



Photos by Ernie Mastroianni, Mike Borchert and Don Woelz



Spectrum newsletter

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