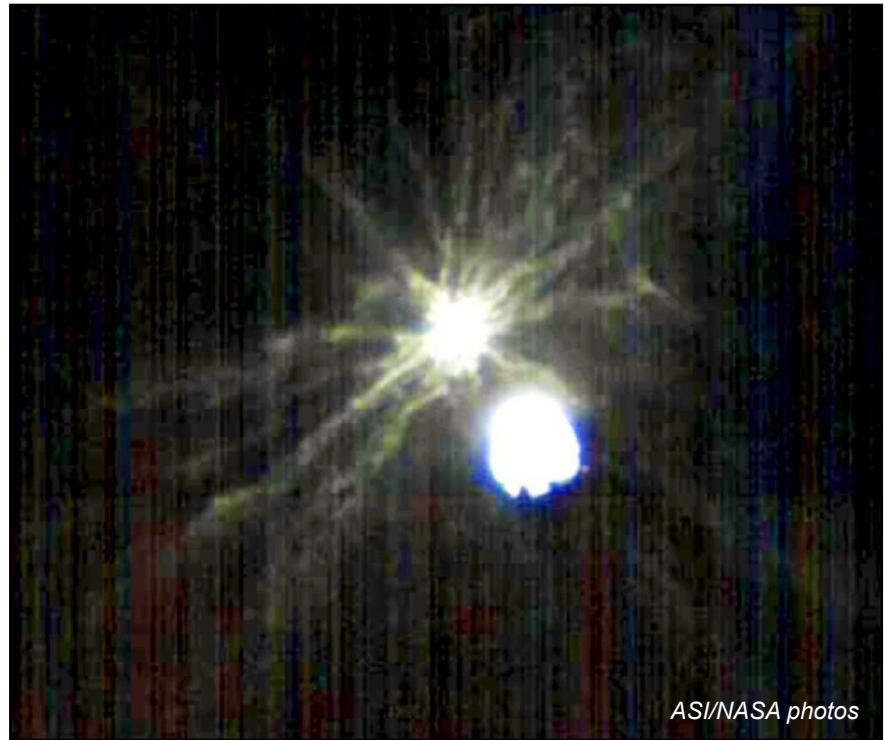
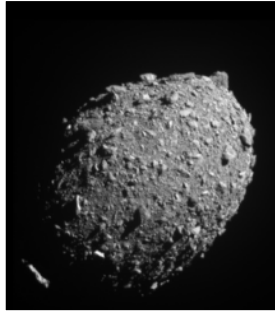


# S P E C T R U M

Northern Cross Science Foundation Newsletter

October 2022



ASI/NASA photos

**Orbit Alteration** - Controllers at Johns Hopkins Applied Physics Laboratory cheer on Sept. 26 when NASA's [DART spacecraft](#) deliberately struck the asteroid moonlet Dimorphos. The 1,260-lb. spacecraft hit the asteroid at a speed of about 14,000 mph, shooting pictures until the moment of impact. Before the collision, the Italian cube satellite [LICIACube](#) separated from DART spacecraft and recorded the spectacular event (right). The mission's goal was to demonstrate a viable orbit alteration technique for protecting the planet from Earth-bound asteroids. The impact was also photographed by the [Webb and Hubble space telescopes](#).

## New Venue for In-Person Meetings

After two and a half years, I am delighted to announce that the NCSF will resume in-person meetings! Starting with our November 3 meeting, we will be gathering at the [Jackson Community Center](#), at N165W20330 Hickory Ln, Jackson. Our meeting space opens at 6 pm with the first half-hour for socializing. The General Meeting begins 6:30, and wraps up by 7:45 so we can be out by 8.

As time goes on, we can adjust how the meetings are conducted within the 6 to 8 pm window. For some meetings that need to extend past 8, there's an additional cost and advanced notice is required to the center.

It is our hope that our earlier meetings will be friendlier for families with kids. It will also benefit those of us who aren't exactly spring chickens anymore! The meeting space has plenty of room, with tables, chairs, WiFi, audio-visual equipment, and even a commercial-grade kitchen for our pot-luck events. - Jeff Setzer

## Exploring the Violent and Invisible Universe

Optical astronomy is revered, but the electromagnetic spectrum extends well beyond the visible, from slow radio waves to high-energy gamma rays. **October's main program** will be by Solar System Ambassador Amy Oliver, a public information officer for various observatories, including the National Radio Astronomy Observatory.

Join us as we explore the violent and invisible universe through multi-wavelength astronomy at the Very Large Array, Atacama, Green Bank, Chandra X-Ray Observatory, and more.



## Looking Ahead

**Thursday, Oct. 6**  
**General Meeting**  
via Zoom, 7:30 pm

**Saturday, October 15**  
**7 to 11 pm**  
Binocular night  
NCSF Members only  
Harrington Beach State Park  
Stargazing for two eyes,

**Saturday, October 22**  
**All Day**  
Possible Amtrak trip to Adler  
Planetarium, details to come  
Check the NCSF Slack page  
or contact Joyce Jentges

**Saturday, Oct. 29**  
**7 to 11 pm**  
Public Viewing  
Pike Lake Unit  
**Volunteers Needed**

**Thursday, Nov. 3**  
**General Meeting 6 pm**  
In-person, [Jackson Community Center](#)

## Clear Summer Nights (and Cloudy Ones Too) Kept NCSF Members Busy

The days between late July and early October kept many NCSF members very busy with public outreach and star parties throughout the state. At venues including Harrington Beach, Pike Lake, Horicon Marsh, and Port Washington, hundreds of viewers looked to the night sky through telescopes courtesy of our club. Members also traveled to the Northwoods Starfest near Chippewa Falls and Gerry Kocken's campground under the dark skies of Amberg.

### From Gene and Charlotte DuPree

Not all people understand that telescopes cannot see through the clouds or that public observing is outdoors. So it is important that someone should be present at all public viewing events to answer questions if visitors arrive.

**September 2, Reuss Ice Age Center:** We met Joyce Jentges, Jeff Setzer, and Steve Sweeny at the Hamburger Haus in Dundee, for supper and sharing. We arrived at the Ice Age Center around 6:30, and helped block off the lot with traffic cones. It had

*See next page*



Public viewing at Harrington on Oct. 1. Ernie Mastroianni photo

## September General Meeting Minutes

- Jeff Setzer opened the recorded meeting at 7:30 with 18 members in attendance.
- Katie Gansler, a solar system ambassador, and University of Maryland geology graduate student at College Park gave the evening's presentation on "Why Pluto isn't a planet, and why it doesn't matter".
- The presentation was well received and there was a question-and-answer period after.
- The business meeting followed.
- Gene DuPree reported \$5,321.94 in the general fund.

• Mike Borchert thanked Don Woelz, Ernie Mastroianni and all involved in the upgrading of the hand controller for the 5" refractor at the observatory. Jeff reported that the chair of our North

### From page 1

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• Gene DuPree reported \$5,321.94 in the general fund.

• Mike Borchert thanked Don Woelz, Ernie Mastroianni and all involved in the upgrading of the hand controller for the 5" refractor at the observatory. Jeff reported that the chair of our North Central Region of the Astronomical League must retire, due to his 3rd term conflicting with the by-laws. He had been asked if he was interested. Jeff in turn extended the offer to anyone in the club who might be interested. Check the website, <https://www.astroleague.org> for more information.

• A discussion on volunteering at the Harrington Beach State Park observatory centered on the need for and lack of leaders

and assistants for public viewing nights, for example, tomorrow, Friday, September 2. Friday was sorted out with Joyce Jentges and Jeff working it. Jeff stated that the matter would have to be discussed next year in more depth. Those who were cleared to use the observatory should spend at least a night during a public viewing as leader or assistant. Public viewing is a condition with the DNR to have our observatory in the park.

• September 3, Saturday, 7:30-11pm, there will be public viewing at the Henry Reuss Ice Age Center, N2875 Hwy 67, in Campbellsport. Volunteers welcome.

• September 9, Friday, 7:30-10:30pm there will be public viewing at the Horicon Marsh Visitor Center, N7725 Hwy 28, Horicon, 53032. Phone, 920-387-7893. Volunteers welcome.

• September 17, Saturday, Public Viewing at the Pike Lake Unit of the Kettle Moraine State Forest from 8-11 pm.

• Joyce then explained plans for an Adler Planetarium visit. At this time the trip would be October 22, Saturday. Plans include taking the 8:15 Amtrak out of the airport station, (there is paid parking for the day at the station, I believe the company providing

the parking is Park and Ride a county run parking lot). The train would arrive at 9:24 in Union Station, about 2.6 miles from the Planetarium. We would cab, Uber, Lyft to the planetarium. Joyce mentioned, one of the highlights for the visit would be a replica of the Mar's vehicles on display. Maximum cost for admission to Adler was \$28.

It was mentioned that there was a possibility of letting Adler know we were coming, and maybe they would give us some special attention? There is a restaurant onsite for lunch. Plans then would be to catch the 5:08 Amtrak back to Mitchell Field station. Further plans to be worked out, would be dinner near the airport. Amtrak tickets are \$25 non-refundable and \$35 refundable ONE way. Please follow on Slack for further updates and questions.

• Jeff asked if there were any questions, there were none, and the meeting was adjourned.

• The minutes are posted for correction and approval.

- Mike Borchert, Secretary



Adler Planetarium/Wikimedia

## A Busy Summer for NCSF Stargazers

been sunny a good part of the day, but no longer when visitors started to arrive. We wondered if we would be viewing anything tonight. It never cleared. A grandmother with her grandchildren brought a refractor that had been given to them. It had multiple problems. Gene and Steve were able to fix most of it and aligned the finder. They will practice using it and will try to bring it the next time we are at Pike Lake.

**September 17, Pike Lake State Forest:** Another very good reason why we need to have volunteers to attend all public viewing nights. It was cloudy but no rain on the radar, so we went to the Pike Lake campground viewing site. A young man and his grandfather had arrived just before Al Steinberg did. They knew we would be out there that night and brought a reflector on an equatorial mount to get some pointers. Charlotte was able to get the finder aligned, Gene and Al explained how to operate the mount, emphasizing that you don't pick up the mount to change the pointing direction of the telescope!

**September 30, Port Washington Family Campout:** The event went well. The moon was first on the list then Jupiter and Saturn, also M15, 11, 13, 31, 57 and the Owl Cluster. We had about 50 parents with children lots of wows and thank-yous from the campers. Thanks to Rick Kazmierski for taking part in the event too. It ran from 7:30 to 9:15.

**Oct 1, Pike Lake** Great night for viewing at Pike Lake. We had about 60 visitors, including two different girl scout troops, home schoolers and campers. Saturn was the highlight until Jupiter and a shadow transit happened. Other things were M15, 13, 57, NGC 457, 869, 884. Early visitors got views of the moon, which was later blocked by trees. The home schools gave us a \$10. donation. Helpers were Al Steinberg, Steve Schowalter and Steve Sweeney.

### From Jeff Setzer

As I sat at my new desk on a Saturday morning, I got to thinking about the time between the last two Fridays (Sept. 2 to Sept 9).

**September 2 Harrington Beach State Park:** A Friday night Northern Cross Science Foundation public observatory session at Harrington Beach State Park that saw an estimated 120 people attend on a wonderfully clear night.

**September 3 Ice Age Visitor Center:** I gave an astronomy talk at the [Ice Age Visitor Center](#) to 27 people, even though the evening was hopelessly overcast.

**September 6, Lime Kiln Park:** Tuesday night I did an hour-long night sky viewing at Lime Kiln Park as a special event for the Grafton Parks and Recreation department, which had several families attend, where they all got to see the Moon,

Saturn and Jupiter through my Celestron C5+ telescope and take mobile phone snaps of the Moon to take home with them.

**September 9, Horicon Marsh Visitor Center:** I helped with a telescope viewing event, showing Saturn and eventually Jupiter through that same, well-travelled, C5+ telescope.

Whenever I start to live inside my head, sharing the universe to others always lifts me up and puts in a better headspace. People thank me all of the time at these events, and I always say you're welcome -- and thanks for coming out. The truth is, I get as much out of these activities as they do.

**September 30, Harrington Beach State Park:** And another Friday at months end! We had **90** people signed into the guestbook, which means we probably had more like 120 people actually in attendance. Thanks for everyone who set up scopes in the parking lot so people could get views of the Moon, and Jupiter low in the eastern sky toward the end of the evening. Special thanks to Jim Macak [@jimmac](#) and Christopher Fuchs [@Christopher Fuchs](#) for assisting me in the observatory itself.



*From top: Setzer's 5-inch Celestron at Horicon; observing at Pike Lake; Rick Kazmierski, the DuPrees, and Gerry Kocken (far right) at the Pike River Starfest. Photos from Jeff Setzer, the DuPrees, and Rick Kazmierski*

### From Joyce Jentges

**Northwoods Starfest August 26-28:** NCSF members Jeff Setzer, Gene and Charlotte DuPree, Mark Zellner, Rick Dusenberry and Joyce Jentges attended this year's Northwoods Starfest at Beaver Creek Reserve in Fall Creek, Wisconsin. We were able to get in a few hours of observing on Friday night, despite what the forecast was saying. Attendance dwindled throughout the day as skies were cloudy and rainy. We did not have as much rain as last year though.

### November 1, Random Lake Schools:

Joyce Jentges is looking for some volunteers to assist with a viewing night for the middle school classes at Random Lake

Schools. November 1st from 6 to 8 pm with a

back up date of November 2, 6 to 8 pm. The reason they are doing this so late in the year is that she is trying to avoid the sports seasons. Please let me know if you would be willing to help.

### From Ernie Mastroianni

**Oct. 1, Harrington Beach State Park:** Dan Goetz, Tom Schmidkuntz and I had about 40-50 visitors for our public viewing night at Harrington Beach under very clear skies and a low first quarter moon. We were very busy between 7 pm and about 9:30. We had the 5" refractor and the 20" in use with the usual deep sky objects keeping us busy. We pointed the refractor to Jupiter, Saturn, Uranus and Neptune as well.

We used the 8" mask on the 20" Panarusk and it helped render a sharper image of Saturn. The refractor still has some pointing accuracy issues, even though the new hand controller works and communicates with the mount. I uploaded the proper location and time into the hand controller, but still had problems. But when I used the mount's WiFi link with my iPhone and SkyPortal software, the pointing accuracy improved. More work needs to be done with the refractor's mount. - *Ernie Mastroianni*

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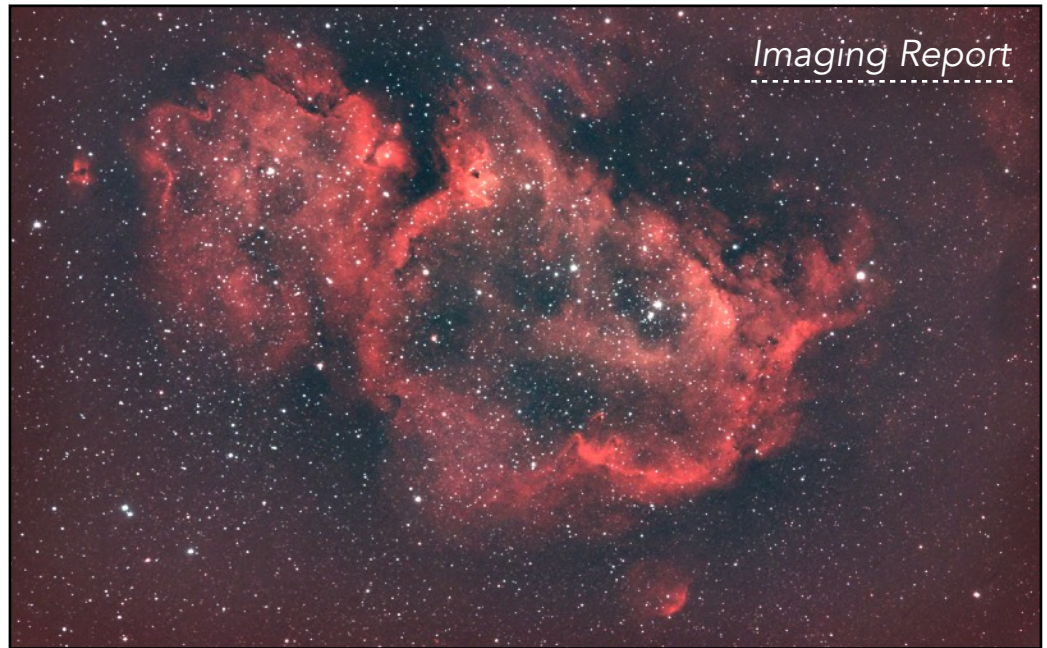
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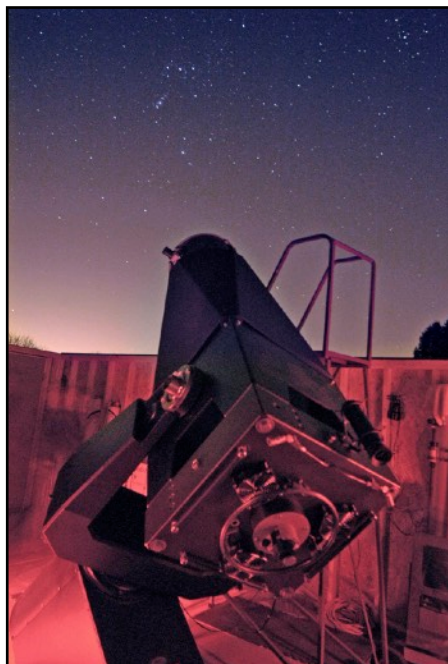
NCSF is a member of the [North-Central Region of the Astronomical League](#).



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



**Heart and Soul -**  
*Ernie Mastroianni and Don Woelz kept busy with astrophotography in September, imaging the Heart and Soul Nebulas in Cassiopeia. The Soul Nebula (above) was taken by Mastroianni from Whitefish Bay using a Nikon 300mm lens and three total hours of exposure. Woelz captured the Heart Nebula with his Zenithstar refractor from his West Bend home, recording more than six hours of exposure time.*

**Spectrum newsletter**

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