

Astronomical League Events this month

Dave Minerath, Editor

The December 2024 issue of “What’s Up with the Astronomical League” tells about some events coming up this month and a special observing challenge coming for 2025.

On December 6, there will be a livestream event titled “Observing it All with Binoculars” led by Scott Harrington. You can watch it live or recorded. The links are:

explorescientific.com/live or facebook.com/astronomical.league

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Christmas Astro-gift Exchange

Joyce Jentges, NCSF Vice-President

Join us at our holiday potluck party at the December meeting on December 5, 2024. Feel free to bring a dish to pass and a wrapped astronomy-themed gift. It can be a piece of telescope equipment, books, gift items, whatever you can think of. We will do the gift exchange after the potluck supper for all to see. Festive wear is encouraged for the party. Questions, please contact Joyce Jentges. My information is on the last page of the newsletter under the Board of Directors information. 🪐

December Events

General Meetings

All general meetings are held at the Jackson Community Center

N165 W20330 Hickory Lane
Jackson, WI

unless otherwise noted.

Thursday December 5, 6pm

Holiday gift exchange and
potluck supper

Thursday, Jan

2, 6pm

Presentation
topic TBD



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The Special Observing Challenge

To celebrate the 35th anniversary of the Hubble Space Telescope, the Astronomical League and NASA have put together a special observing challenge for 2025. I'll summarize the challenge here; for full details go to <https://www.astroleague.org/nasa-observing-challenges-special-awards> and scroll down to the *Hubble Telescope - 35th Anniversary Observing Challenge*. You do not have to be a member of the Astronomical League to earn these awards.

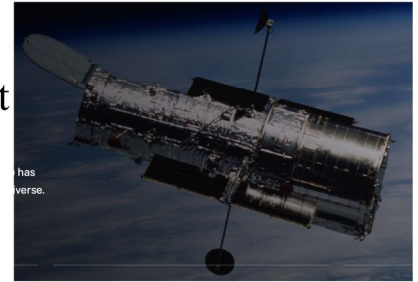


Image Credit-NASA

The Silver Award: This is a monthly challenge where you can earn a silver certificate for each month of participation. The requirements:

- Conduct at least one outreach event highlighting accomplishments of the Hubble Space Telescope
- Observe at least one object that is on the list for that specific month (see website linked above for the monthly lists-the January list is posted) and capture an image or make a sketch of the object, as detailed as you can make it. Identify the part of your image or sketch on the Hubble image. There is a link on the website that will take you to the image library for the challenge.

The Gold Award: This challenge spans the whole year. Completion of this challenge will earn a gold certificate and a special pin. The requirements for the individual silver challenges are similar, but require more observations.

- Conduct at least four outreach events over the course of 2025 highlighting accomplishments of the Hubble Space Telescope
- Observe at least four objects that is on the list for each month and capture an image or make a sketch of the object, as detailed as you can make it. Identify the part of your image or sketch on the Hubble image.

Specific submission requirements and deadlines are on the website. 🪐

Mequon Nature Preserve Gets a Scope Donation

Posted by Jim Hahn on Slack...

Donating this telescope to Mequon Nature Preserve tomorrow. I acquired it from another member of the Northern Cross Science Foundation for a very reasonable price. It required some cleaning and adjustment, but was in good working order. I supplied 25mm and 6mm eyepieces, and other members of the club supplied a finderscope and 12.4mm eyepiece. Thanks to Gene (Dupree), Charlotte (Dupree), and Don (Woelz)! 🪐

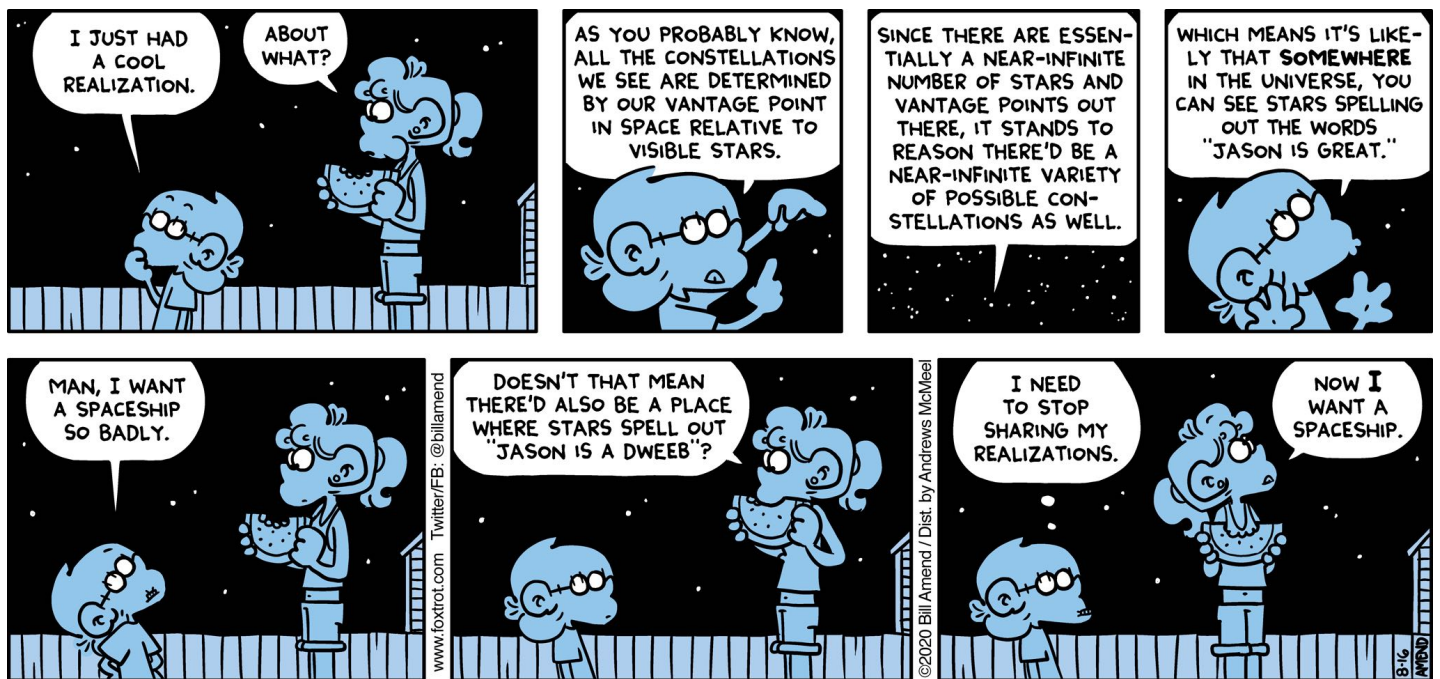


Image Credit-spacequotations.com

"Equipped with his five senses, man explores the universe around him and calls the adventure Science."

- Edwin Hubble

NCSF November Meeting Notes

Don Woelz, NCSF Secretary

At 6:30 on November 11, 2024, at the Jackson Community Center, Jeff Setzer introduced Joe Barboza and his presentation for the evening about his experience owning and using a Dwarf II Smart Telescope.

Joe, a member of the Northern Cross Science Foundation, outlined the specifications for the Dwarf II as well as the exposure modes. It has a focal length of about 100 mm and, in astro mode, can have exposure times ranging from 1/10,000 to 15 seconds and can take up to 999 images. He showed example images had taken of deep space objects and others. He closed out the presentation by talking about the new Dwarf III Smart Telescope that is now available for approximately \$500. It includes more filters, a 150mm focal length, and wide angle capabilities in all modes.

After the presentation, these announcements were made: Kevin Bert gave an update on repairs to the Panarusky Telescope. The re-engineering of the mirror support structure was delayed due to fall property maintenance at his home, but is progressing.

In the Sky This Month



[freepik.com](https://www.freepik.com)

- 1 – New Moon
- 4 – Moon near Venus
- 7 – Jupiter at opposition
- 8 – Moon near Saturn; lunar occultation of Saturn
- 14 – Geminid meteor shower peak
- 15 – Full Moon
- 18 – Moon near Mars; lunar occultation of Mars
- 21 – December Solstice
- 22 – Ursid Meteor Shower peak
- 25 – Mercury at greatest western elongation
- 30 – New Moon 🪐

The December 5, 2024 member meeting at the Jackson Community Center is the annual meeting to elect board members. Nominations to fill the expiring terms of Don Woelz and Kevin Bert were taken from the members. Don Woelz and Kevin Bert were nominated and accepted their nominations. Further nominations will be accepted at the meeting before the election is held. The doors open at 6 pm with the annual business meeting starting at 6:30, followed by our Holiday Party until 9 pm. Those attending are asked to bring a food dish to pass. An astronomy gift exchange will also take place. If participating, bring a wrapped gift of a piece of telescope equipment, books, or other related item. 🪐

This Month in Astronomy History

1934 – John Bahcall, physicist, was born on December 30, 1934. His most famous work was creating the Homestake Experiment with experimental physicist Raymond Davis Jr. This experiment eventually proved that thermonuclear fusion reactions power the Sun. Dr. Bahcall and Lyman Spitzer Jr. were also the key forces behind the development of the Hubble Space Telescope. When discussing the distribution of stars in globular clusters and galaxies, he is the “Bahcall” in the Bahcall-Wolf Model.



Further reading:
<https://aas.org>

Image Credit-aas.org

1968 – Apollo 8 successfully launches on December 21, 1968. Apollo 8 is the first mission that carried astronauts into lunar orbit and back to Earth. The mission was commanded by Frank Borman, with James Lovell Jr. serving as the Command Module Pilot and William Anders as the Lunar Module Pilot, even though there was no lunar module on the flight due to development delays.

Further reading: <https://appel.nasa.gov/2018/12/18/this-month-in-nasa-history-apollo-8-changes-the-worlds-perspective/>



Image Credit-NASA



Photo Credit-NASA

1993 – Richard Covey is in command of space shuttle mission STS-61. This mission was the first Hubble Space Telescope servicing mission. The crew conducted over 35 hours of spacewalks spread out over five separate EVAs (extravehicular activities), replacing numerous modules and instruments on the space telescope. 🪐

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Some Odd Facts About Our Universe

<https://www.skyatnightmagazine.com/space-science/facts-about-astronomy-space>

- The moon is lemon-shaped
- A giant gas cloud at the center of the Milky Way contains ethyl formate, which gives raspberries their flavor and smells like rum
- While a Mercurian Day lasts 59 Earth days, the eccentric orbit and alignment with the Sun result in a solar day (sunrise to sunrise) of 176 Earth Days, twice a Mercurian year of 88 Earth Days. 🌌



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<https://ncsf.info>

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Submissions for publication may be sent to newletter@ncsf.info by the third Saturday of the month prior to publication. 🌌



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