



CAPE FEAR *Skies*

Monthly Newsletter
Cape Fear Astronomical Society
Serving Wilmington, NC and Surrounding Areas



*Cape Fear Astronomical Society is a tax-exempt organization
under Section 501(c)(3) of the Internal Revenue Code.*

January 2024

President's Message

by Ben Steelman

Happy holidays, and best wishes for clear nights and calm skies in 2024!

Thanks to all the intrepid souls who braved the downpour to attend the Society's Christmas party.

Life Members Alan Hilburn and Ronnie Hawes reminded us the Society has passed its 40th anniversary. Alan and Ronnie also reminded us that the Society has had its ups and downs, but it always seems to perk up when folks get excited about the night sky/

Or even the day sky. The big event of early 2024 will be the April 8 solar eclipse. We're out of the path of totality -- Southeastern North Carolina should get in the neighborhood of 75 to 80 percent -- and I suspect lots of folks will be heading back to Texas or other points in the Southwest.

But what about here? Is there any interest in a public or private viewing session on April 8?

Vice President Karl has suggested a March solar viewing session to start to educate people (don't stare straight at the sun, boys and girls) and to spark interest. How do folks feel about this?

Another issue: We still need a chair for the Observatory Committee, succeeding Hank Lyons. As AVP Jon noted, the job doesn't require observing or technical skills, just a lot of patience and persistence. Any takers?

Also, if you attended the Christmas party, you saw the Society library. It's mostly been sitting in storage for the last couple of decades, and I would like to figure out a way for members to have better access. Ideas?

I plan to call a board meeting early in January, before the regular meeting, to discuss some of this stuff. You'll be invited to Zoom in, if you like. (Details to come.) I'm going to try to hold more board meetings to get more busy-ness and scutwork out of the way, so we can spend more time at the regular meetings on astronomy.

Looking forward to seeing you soon.

Keep looking up!

Calendar

January 2024

Date – Event – Time

- 03 Quadrantids Meteor Shower; ZHR 40
- 03 Last Quarter Moon
- 05 Club Observing @ Starfields (the Club Observatory);
5:30 PM; 3rd Quarter Moon**
- 06 Club Observing @ Starfields (the Club Observatory);
5:30 PM; 3rd Quarter Moon**
- 08 Antares 0.8°S of Moon
- 10 Mars 4.2°N of Moon
- 11 New Moon
- 12 Mercury at Greatest Elong: 23.5°W. See it in the Morning
along with Venus
- 12 Club Observing @ Starfields (the Club Observatory);
5:30 PM; New Moon**
- 13 at 05:35 EST: Moon at Perigee: 362264 km
- 13 Club Observing @ Starfields (the Club Observatory);
5:30 PM; New Moon**
- 14 Saturn 2.1°N of Moon

14 ★ Cape Fear Astro Monthly Meeting ★

CFAS Monthly Meeting

7:00pm – 9:00pm - 212 DeLoach Hall; UNCW

Also simulcast via Zoom

- 18 Jupiter: 2.8°S of Moon
- 17 First Quarter Moon
- 20 at 08:25 CST: Pleiades 0.9°N of Moon
- 25 Full Moon
- 27 at 11:00 EST: Mercury 0.2°N of Mars

Astro phenomena from:

<https://www.universalworkshop.com/astronomical-calendar-any-year/>

2024 Public Events

PROBABLE DATES:

March 16 - CBSP

**April 12: 7 - 10pm - STAR PARTY 2024;
by the Cape Fear Museum; CBSP
(replaces State Wide Star Party)
4.6 day old crescent Moon**

May 28 – CBSP

June 15 – CBSP

July 23 – CBSP

Aug 10 – CBSP

**Sep 14 – CBSP
&**

**Sept. 14 - International Observe the
Moon Night**

Oct 12 – CBSP

CBSP = Carolina Beach State Park

2024 Monthly Meeting Dates

Jan. 14

Feb. 4, Mar. 10, Apr. 14, May 5, Jun. 9,

Jul. 14, Aug. 11, Sep. 8, Oct. 13,

Nov. 10, Dec. 8

Special Interest Groups (SIGs)

Usual meeting dates – watch emails for exceptions

Phenomena: First Wednesday

Both Eyes: Second Tuesday

Telescope Usage: Third Tuesday

New Astronomer: Third Wednesday

Outreach: Fourth Tuesday

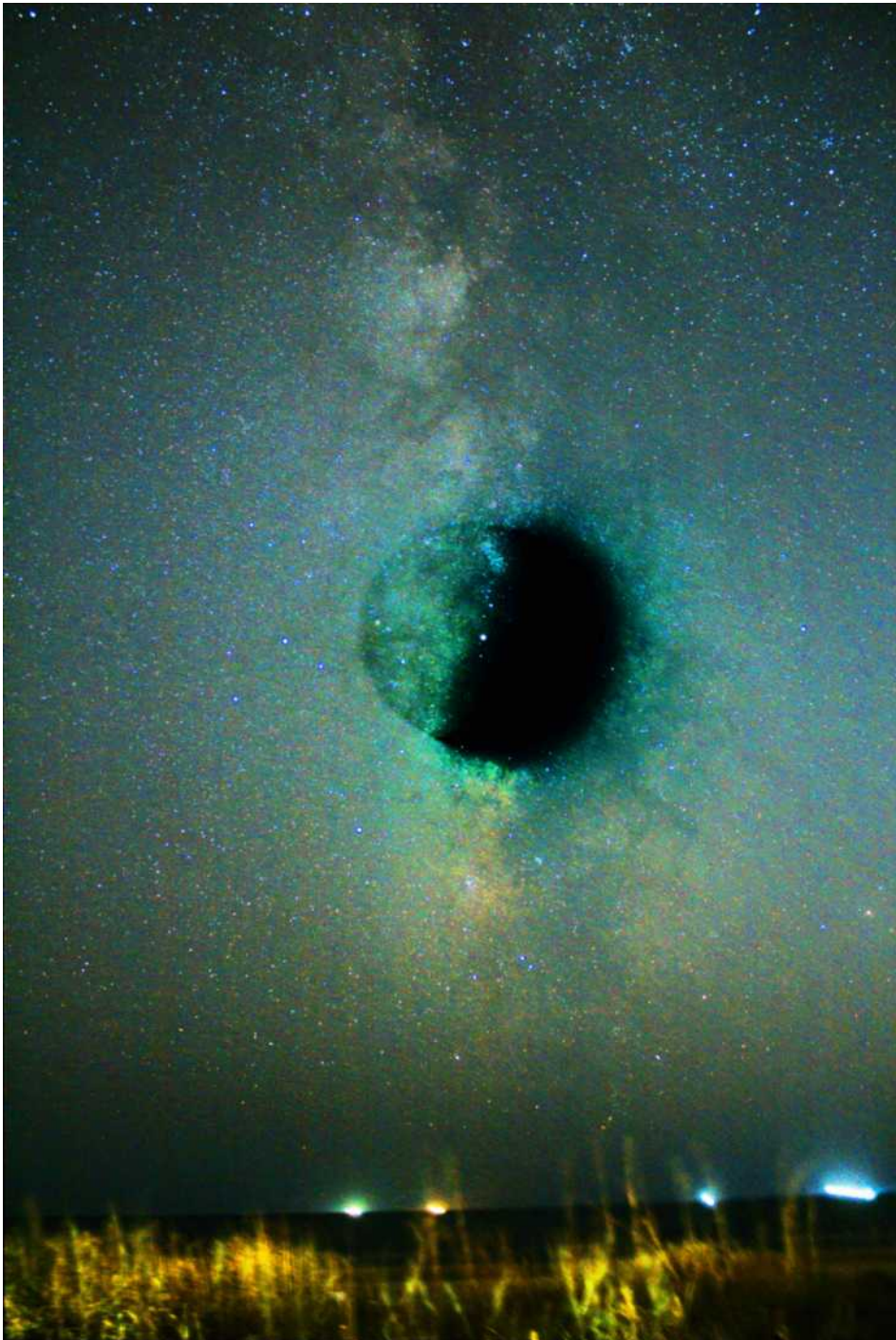
Dues Reminder (Dues are Due)

Dues for 2024 are \$25 for Individual Members and \$32 for Family Membership. Students' dues are \$5 per year. Dues can be paid at the Monthly Meeting or Mail to: CFAS, P.O. Box 7685, Wilmington, NC 28406

Happy New Year!

by Karl Adlon

About a year after we moved to NC, I took some pictures of the Milky Way at the beach. Vignetting caused darkening of the corners, so I took some flat frames to correct that. I thought I knew the directory with the flats, but it actually was some shots of the Moon. This is what you get when you use the Moon for flats!



While my immediate thought was to delete it, It was too strangely interesting of a picture to hit the delete key.

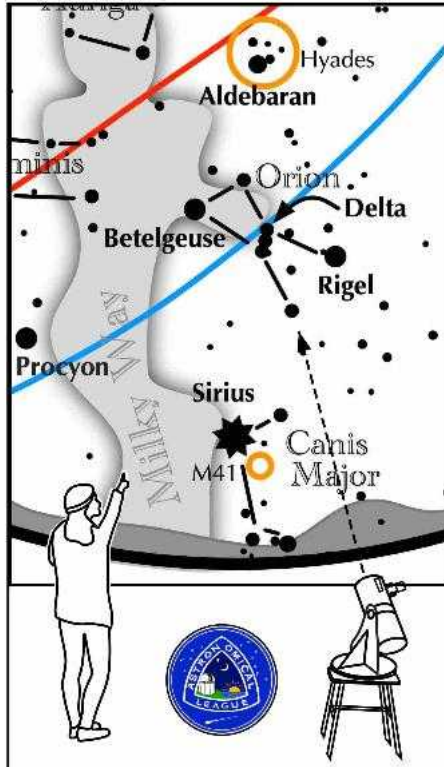
And why am I putting it in the newsletter?

My self-imposed deadline is near.

And I don't have anything else.

HAPPY NEW YEAR!

ASTRONOMICAL LEAGUE Double Star Activity



Other Suns: Delta Orionis (Mintaka)

How to find Delta Orionis on a January evening

Face southeast. Look at Orion above Sirius. Orion's Belt is the three stars of equal brightness between bright Rigel and Betelgeuse. Delta Orionis is the western star of the Belt.

Delta Orionis

A-C separation: 53 sec

A magnitude: 2.4

C magnitude: 6.8

Position Angle: 0°

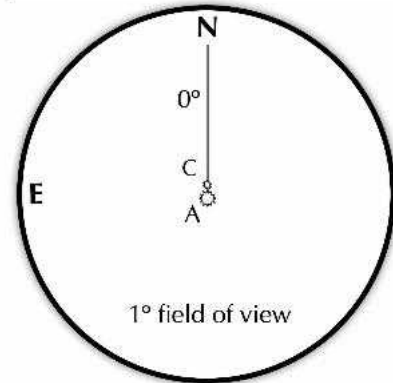
Colors:

yellow-white

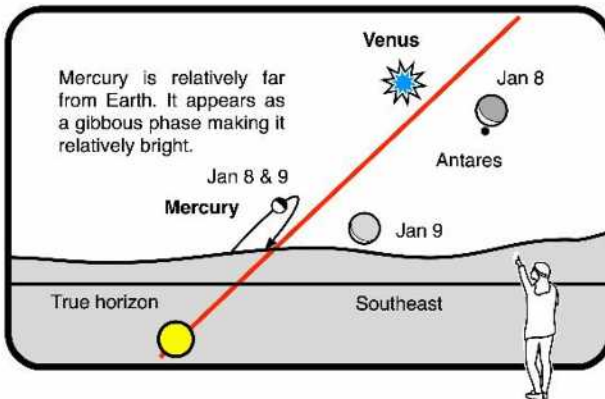
blue-white

Component B is a 14th magnitude star, not visible in most small telescopes.

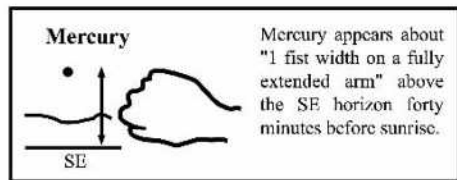
Suggested magnification: >20x
Suggested aperture: >3 inches



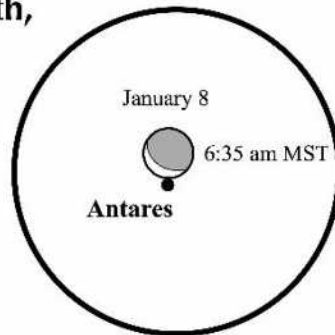
If you can observe only one celestial event this month, see this one:



January 8 and 9, 2024: Mercury, Venus, and the moon forty minutes before sunrise in the southeast



View through
10x50 binoculars
on January 8



The Scene:

The crescent moon, Antares, Venus, and Mercury in the morning twilight

On January 8, the crescent moon approaches Antares low in the southeast 90 minutes before sunrise.

- The moon occults Antares for viewers living in the southwestern portion of the US. (NM, UT, AZ, and So CA.)

- The event begins at 6:39AM MST, location dependent.

- Use common household binoculars to watch the occultation and begin viewing at 6:35 MST.

* The very bright object to the moon's left is Venus.

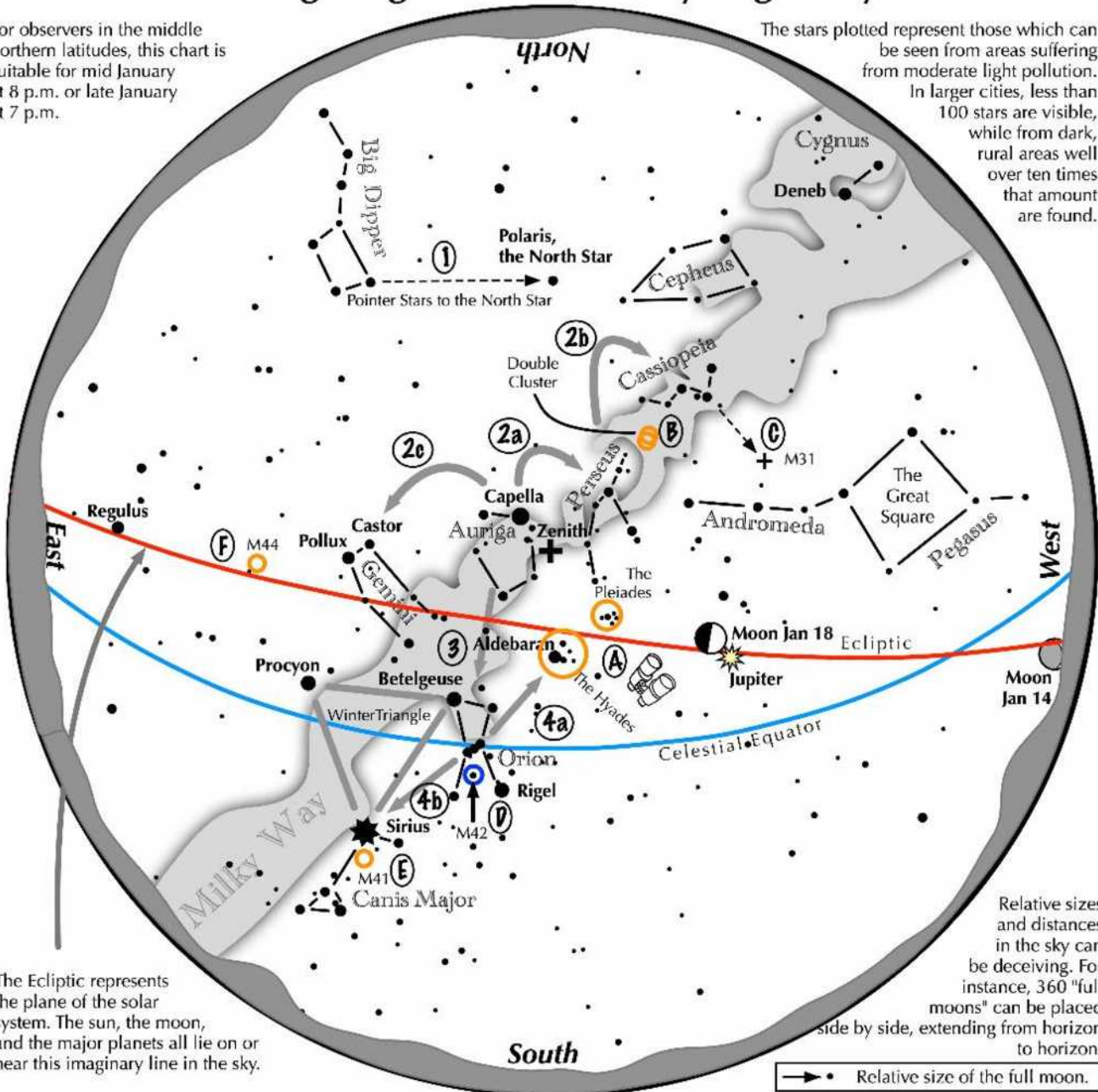
- 40 minutes before sunrise, look for Mercury low in the southeast to the far lower left of Venus.

On January 9, an even thinner crescent moon lies right of Mercury and below brilliant Venus.

Navigating the mid January Night Sky

For observers in the middle northern latitudes, this chart is suitable for mid January at 8 p.m. or late January at 7 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

Navigating the winter night sky: Simply start with what you know or with what you can easily find.

- 1 Above the northeast horizon rises the Big Dipper. Draw a line from its two end bowl stars upwards to the North Star.
- 2 Face south. Overhead twinkles the bright star Capella in Auriga. Jump northwestward along the Milky Way first to Perseus, then to the "W" of Cassiopeia. Next Jump southeastward from Capella to the twin stars Castor and Pollux of Gemini.
- 3 Directly south of Capella stands the constellation of Orion with its three Belt Stars, its bright red star Betelgeuse, and its bright blue-white star, Rigel.
- 4 Use Orion's three Belt stars to point to the red star Aldebaran, then to the Hyades, and the Pleiades star clusters. Travel southeast from the Belt stars to the brightest star in the night sky, Sirius.

Binocular Highlights

A: Examine the stars of the Pleiades and Hyades, two naked eye star clusters. **B:** Between the "W" of Cassiopeia and Perseus lies the Double Cluster. **C:** The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval. **D:** M42 in Orion is a star forming nebula. **E:** Look south of Sirius for the star cluster M41. **F:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux.



Get to Know YOUR Astronomical League



The Astronomical League (Astroleague or AL) is one of the largest amateur astronomical organizations in the world. The organization serves to encourage an interest in astronomy (especially amateur astronomy) and promote the science of astronomy by:

- ✓ fostering astronomical education;
- ✓ providing incentives for astronomical observation and research;
- ✓ assisting communication among amateur astronomical societies.



CFAS is one of over 300 member societies affiliated with the Astroleague. Your membership in CFAS allows you take full advantage of this relationship so periodically review the information below to see how the Astroleague can support your astronomical interests and endeavors.

Astroleague Home Page	www.astroleague.org
AL Observing Programs (Alphabetical Listing)	https://www.astroleague.org/alphabeticobserving/
Night Sky Tools	https://www.astroleague.org/navigating-the-night-sky-guides/
Astroleague Store	https://store.astroleague.org/
Current and Past Issues of <i>Reflector Magazine</i>	https://www.astroleague.org/reflector/
Additional AL News, Information and Reminders	Click HERE for the Astroleague News Page. Contact Hank Lyon, hlyon8448@gmail.com , for any changes to your Reflector delivery preferences (US Mail or Email).

The Astroleague Correspondent (or ALCor) is your link between CFAS and the Astroleague. Don't hesitate to contact your ALCor if you need assistance with anything Astroleague related whether its general information or detailed coordination of observing program completions for certification. **Check back each month to see any new links, postings or reminders.**

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CFAS Correspondence:

Please contact the society at: CFAS, P.O. Box 7685, Wilmington, NC 28406

Members are welcome and encouraged to submit articles or other input for "CAPE FEAR SKIES". Submit any and all interesting items for publication to Karl Adlon, Editor (email kmja79@yahoo.com).

Cape Fear Astronomical Society is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

CFAS Officers:

President: Ben Steelman
 Vice-Pres: Karl Adlon
 Associate VP: Jon Stewart-Taylor
 Secretary: George Pappayliou
 Treasurer: Bill Cooper
 ALCor: Hank Lyon

Dues: Dues for 2024 are \$25 for Individual and \$32 for Family Membership. Students dues are \$5 per year.

Mail to :CFAS, P.O. Box 7685, Wilmington, NC 28406

Contact Us:

You can contact CFAS at info@capefearastro.org

Our website is <http://www.capefearastro.org/>