



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.*

December 2021

President's Report *by Jon Stewart-Taylor*

December: last month of the year. Looking back, it's been quite the year: perhaps dominated by COVID and it's effects and restrictions, but notable for what we were able to do in spite of it. It's also a time to look forward to the new year, and what we hope to do. COVID may be a significant presence in the new year, with the "omicron" variant popping up already, and possibly others which may develop in the coming year. Fortunately, all current variants still allow us to freely associate outside under the skies.

This year's Holiday Celebration is tentatively scheduled for Saturday, 11 December. George Pappayliou was kind enough to volunteer to host it. We're waiting for further details from George, which will hopefully arrive via the e-mailing list.

We're planning to hold our Annual Meeting there as well, looking back over the past year, and looking forward to the coming year. We'll hold the election of 2022 officers. Our slate contains people you're familiar with as officers. I'm returning as President, Skip as VP, and Ben as Treasurer. George will be moving to Secretary, and Karl will return as AVP (and program coordinator). If anyone has a program in them, please work with Karl to do it in the coming year. Karl is also continuing as Newsletter Editor, and having the programs on top of that is a lot.

The candidates for Elected Office are:

President: Jon Stewart-Taylor
Vice-Pres: Skip Hagers
Assoc. VP: Karl Adlon
Secretary: George Pappayliou
Treasurer: Ben Steelman

Newsletter Editor is a non-elected office, as are ALCOR and Observatory Director (both held by Hank Lyon) and the Webmaster, held by Jon Stewart-Taylor, who is open to someone else taking this office.

As the final part of the Annual Meeting, we're going to open the floor for every member to discuss how well the club is (or isn't) meeting their needs, and how the club can improve. With the help of all the members, we can be a better club with the services we provide for members and the public.

Calendar

The November Meeting is planned to be in person (**please wear a mask**) and be via ZOOM. Observing events, being outside, shall continue at this time. Please watch your email for the most up to date information.

December 2021

Date – Event – Time

03 Mars $\frac{3}{4}$ degree from the Moon; 18 deg from the Sun in the morning sky

03 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 05:30 PM

04 New Moon

04 Solar Eclipse - not visible from the U.S.

04 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 05:30 PM

06 The Moon swings by Venus and Saturn in the evening sky

07 Venus 2 degrees from the Moon; 39 deg from the Sun in the evening sky

10 First Quarter Moon

**December 12 Holiday Celebration, 5 PM, Cape Fear Astro
Yearly Holiday Celebration and Elections**

13 Geminid meteors; ZHR 120; peak Dec 13; 3 days after First Quarter Moon

15 Uranus 1.5 degrees from the Moon; 138 deg from the Sun in the evening sky.

18 Full Moon

21 December Solstice. Northern hemisphere Winter begins.

24 Club Observing – Location TBD; 05:30 PM

25 Club Observing – Location TBD; 05:30 PM

26 Last Quarter Moon

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

Prospects for Comet Leonard

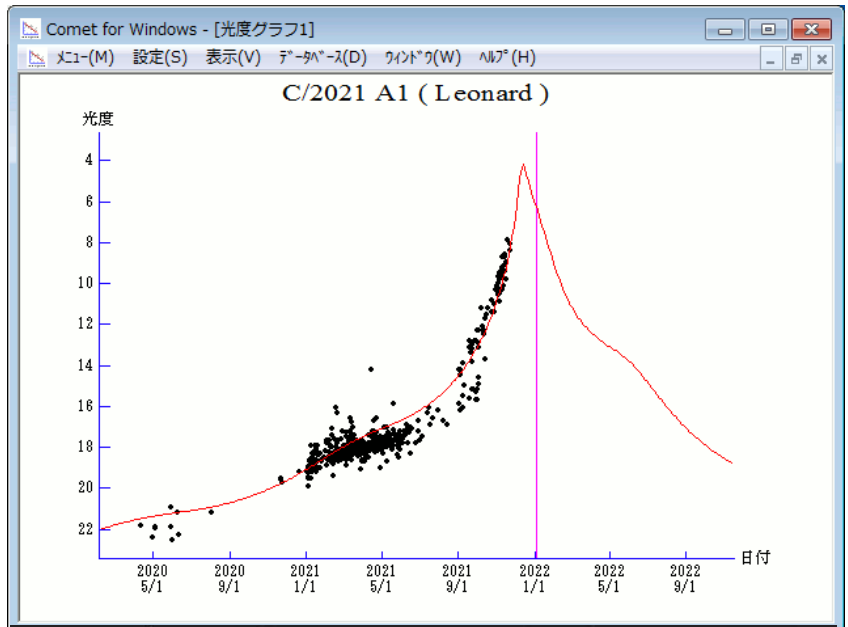
by Karl Adlon

As the end of 2021 nears, the best and first discovered comet of the year will make its appearance – let us wish we have clear skies!

C/2021 A1 (Leonard) is an inbound long period comet discovered by G. J. Leonard at the Mount Lemmon Observatory on 3 January 2021. Its forecast light curve as well as recent observations, taken from Seiichi Yoshida's website at aerith.net, are shown at right.

Should the comet continue along the predicted light curve, it will should be an easy binocular object but due to its early morning location, probably not naked eye.

Current predictions are that it will not “eclipse” Comet NEOWISE in brightness.



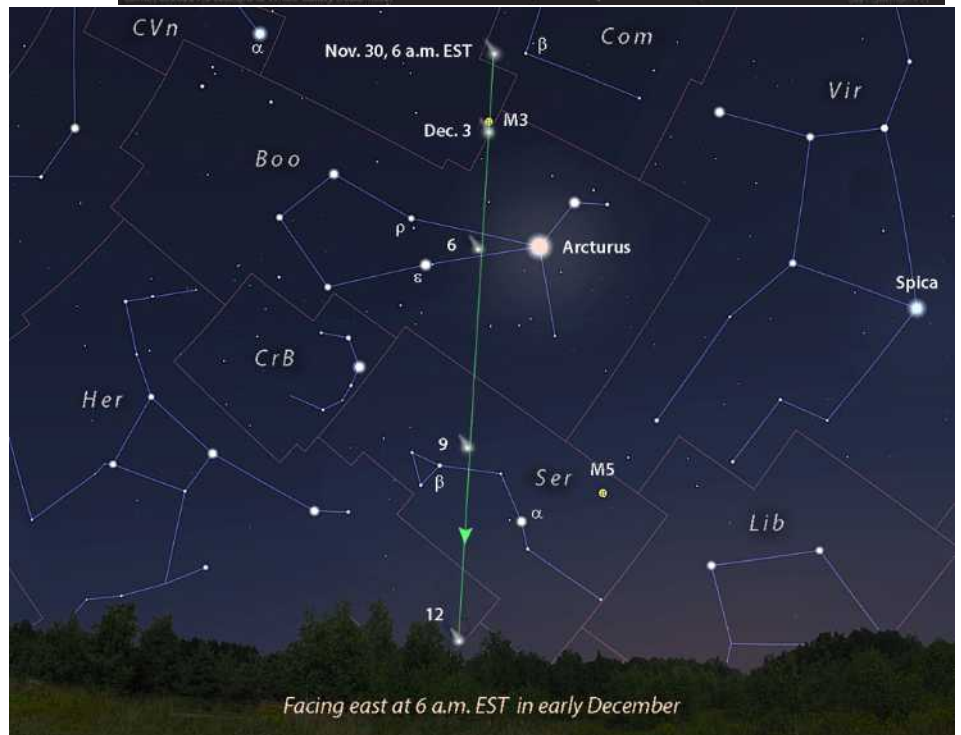
Raymond Negrón took this spectacular image of Comet Leonard passing almost in front of the Whale Galaxy (NGC4631) from San German, Puerto Rico on November 24, 2021. Thank you, Raymond!

The location chart (below, right) from Sky & Telescope shows the location of the comet for 6 AM, on the mornings of November 30 to December 12.

Some (obvious) factors that will affect our view:

- ▶ We don't know how intrinsically bright the comet will be
- ▶ Humidity is high in this area and can negatively affect the view and cause dew on equipment.
- ▶ To minimize the amount of light pollution affecting our view, an early morning to east facing coasts would help most of us.
- ▶ However, the usual low clouds and haze over the ocean can negatively affect our view.
- ▶ Last but not least, December mornings are usually COLD!

Here's hoping for the best!



The Almost-Total Eclipse

Picture by Becky

Processing by Karl

The morning of November 19, 2021 those who were not clouded out and who were awake about 4 AM were treated to a 97% eclipsed Moon. Becky was one of those and took this picture at 4:02 AM EST. You may have seen the video she made. I asked her to send me the file for some shots. I picked this one and processed it, bringing out a little more detail and color. Thanks for sharing the file, Becky! Enjoy!



2022 Programs

by Karl Adlon

Looks like I'll be AVP next year but you still have a chance as a write-in and I *will* vote for you!
Well, it doesn't hurt to try!

I have a few ideas for programs I could do. One will be a problem because it would be best in person and at a ground-level location.

I've seen some videos on one of the missions that I could string together.

I could also piece some info from my Science Olympiad coaching that I learned and that would be interesting.

HOWEVER, if you read the above, it's I, I, I, I.

What about YOU?

Can YOU:

Give or host a Program some time in 2022?

Give some ideas for Programs? A good video; a personal interest or question; a good topic that most would find interesting, etc.

Otherwise, I (or is it you?) might not have a program for some meetings! Oh-Oh!!



Astronomical League Update
by Hank Lyon
Astronomical League Correspondent (ALCor)
hlyon8448@gmail.com
www.astroleague.org



Now that we're in the holiday season, many of us reflect upon accomplishments and events that have occurred during the year. While our struggles with COVID have been a challenge in 2021, increasing the membership of CFAS has not. Many of the AL affiliate clubs also report membership growth during this 75th anniversary year of the AL, which is very encouraging and great news for amateur astronomy.

Above, we're including the 75th anniversary logo again this month as a final reminder of the AL's accomplishment this year. You may notice that the anniversary logo shares some elements of the original AL logo, which we provide with this update each month. As I researched the meaning of the symbolism in the logos, I found the following explanation on the AL website:

Our original logo was designed in 1952 by James H. Karle of Portland, Oregon. Mr. Karle was an instructor in astronomy at Lewis and Clark College in Portland. He was League Secretary starting in 1951.

About the design he says:

"This design has been developed in an endeavor to present at first glance its meaning and association with astronomy as represented by the many amateur societies which comprise the League. These societies devote their attention to several branches of the science and my design depicts the more important ones.

"Solar is shown by the setting sun. Lunar is represented by the crescent moon, while sparkling Venus, just above the Moon, pays tribute to the planets. The streak of a meteor just below the word LEAGUE tells of another interesting branch followed by many amateurs. Then the vastness of the wide expanse of a night sky brinks in the "deep sky wonders," to which so many devote their observing hours, the constellation of Ursa Major and Cassiopeia being clearly shown in the margin.

"Then there is a large and important section of members of our societies who follow the cult of the telescope and instrument maker; it would be a fatal omission to forget them. So there is shown what is obviously an amateur's observatory, the size of it being indicated by the size of the door.

"Finally, the words comprising our official name, ASTRONOMICAL LEAGUE, it stands out, dominating the design in a pleasing form. The entire design is in only two colors, blue and white, which is again appropriate to the theme, and it is confined within a circle, suitable for stationery or lapel pin."

Happy Holidays everyone and as always, please reach out to me if you need any assistance with any of the AL programs, resources or simply wish to learn more about the AL.

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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).

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CFAS Officers:

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

Dues: Dues for 2021 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/>