

President's Report

by Jon Stewart-Taylor

For any who haven't already heard, there is big news: We're resuming in-person monthly meetings on the campus of UNCW, in DeLoach Hall. We will at least make the attempt to continue a Zoom presence at the meetings, allowing our remote members a chance to at least watch the presentation portion of the meeting. Depending on how it works, we may extend this to the business portion as well.

The solstice celebration was small, as most club members had conflicting appointments or weather worries. Terry, Jeff, Kathleen and I spent a couple hours at the picnic area at Carolina Beach State Park with way too much food. The weather wasn't awful: warm, and overcast, but the breeze kept the bugs away and the temperatures tolerable. We chatted about various topics. Jeff brought out his C8 on an AVX mount, and Terry had good advice to share. Unfortunately the overcast held steady to the point where even the first quarter moon couldn't be seen, and we had to cancel the public session. We'll try a Public Session again on July 17th. Hopefully we won't have a Tropical Storm in store that day as we did for this one.

The presentation at the monthly meeting was on the Observatory SIG's efforts on creating a club observatory. I think all the SIG members were please with the club's reaction, and we plan on creating a proposal for transferring the observatory from "private" hands to the club. It may be too short a time to present it at the July meeting, but we'll definitely have it ready for August.

We encourage you to send us e-mail about how you'd like to use the observatory space, and what equipment and other facilities you'd like to see there. We can't promise any of your wild dreams will happen, but when the observatory is in the club's control the direction it goes will at least be influenced by what members want and support.

Calendar

July 2021

Date – Event – Time

01 Last Quarter Moon

02 Club Observing – Location TBD; 08:30 PM

03 Club Observing – Location TBD; 08:30 PM

04 Mercury at westernmost elongation; 21 deg from sun in morning sky

09 New Moon

09 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 08:30 PM

10 Club Observing at Starfields; Shiloh Road Ivanhoe NC; 08:30 PM

★ 11 Cape Fear Astro Monthly Meeting ★ ★ ★ ★

GAstronomy Meeting - 5:00pm – 6:45pm
 (Dinner, prior to the Monthly Meeting)

Los Portales Taqueria No. 2, 29 Van Campen Blvd., Suite 109, Wilmington, NC 28403

CFAS Monthly Meeting - 7:00pm – 9:30pm

212 DeLoach Hall, UNCW Campus
Program: "The H-R Diagram & Stellar Evolution"

12 Venus – Mars – Moon; Moon swings by Venus and Mars, evening sky

13 Venus – Mars; Venus ½ degree from Mars; 30 deg from sun in evening sky

17 First Quarter Moon

17 Public Observing; 7:20-10:30 PM; Carolina Beach State Park

22 Venus 1 degree from Regulus; 31 deg from sun in evening sky

23 Full Moon

29 Southern Delta Aquarid meteors; ZHR 25; peak Jul 29 16h; 2 days before Last Quarter

30 Mars 0.6 degrees from Regulus; 23 deg from sun in evening sky

30 Club Observing – Location TBD; 08:30 PM

31 Last Quarter Moon

31 Club Observing – Location TBD; 08:30 PM

Astro phenomena from

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

Special Interest Groups

by Jon Stewart-Taylor

In Cape Fear Astro, Special Interest Groups (also known as SIGs) are groups of club members who are interested and wish to participate more deeply in a specific area of astronomy. We started several SIGs while in-person meetings and observing sessions were restricted during COVID. The current SIGs are:

<u>Subject</u>	<u>Meeting Day of the Month</u>
Astrophotography	Occasional Mondays as announced
Phenomena	1 st (First) Wednesdays
Both Eyes	2 nd (Second) Tuesdays
Club Observatory	2 nd & 4 th (Second & Fourth) Thursdays
Telescope Usage	3 rd (Third) Tuesday
New Astronomer	3 rd (Third) Wednesday
Outreach	4 th (Fourth) Tuesday

SIGs are currently generally held at 8pm, but if people would like that time shifted, SIGs can happen at 7 or 9 pm, whatever meets people's needs.

Up to this point, meetings have been via ZOOM for COVID safety reasons. SIG leaders publish meeting reminders on e-mail and often via GroupMe, so you can click on them and go straight to ZOOM. But, now that we're allowed to meet in person, SIG meetings could happen before or during observing sessions. That could allow members to try stuff out under the stars.

If you're interested in participating in one or more SIGs, but have scheduling conflicts on date or time, let us know and we can try to accommodate as many people's schedules as we can.

Astrophotography "Challenge"

by Karl Adlon

"Oh-Oh!" You might think that if your first thought is "Competition", which this is NOT.

Because this Challenge is not between Astrophotographers, but of Astrophotographers themselves.

Here's how it works:

- ★ Think of an Object, or more than one, that you want to image; one(s) that you never imaged or that you want to image better.
- ★ Write it (them) down. This is the first hard part.
- ★ Do your best imaging it (them). Doing your best can be the second hard part.
- ★ At the beginning of 2022 we AP-SIG members will have a show and tell. If you accomplish your goal before that and can't wait until then, go ahead and show us early. (Maybe the last hard part.)

So that's how it works. At the July 5th meeting, I will ask if anyone wants to share their goals.

- It is not a requirement to do so but it will motivate you more if you do.
- If you have problems, the SIG is here to help.
- Challenge your self. One of the spiral arm in M101 is kinked. Whenever I see a picture of it I look to see that, plus what other detail I can see. It's in the northwest in the evening right now, so I think too low now and getting lower. It's not my object – just an example of how I might pick an Object.

CHALLENGE YOURSELF!

ps – Not into AP? You can do something similar visually.



Astronomical League Update

by Hank Lyon

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The August 19-21 virtual 2021 Astronomical League Convention (ALCon 2021) is quickly approaching; details are unfolding with each passing week. While the full agenda and speaker list has not yet been finalized, the list of door prizes is growing without delay. The AL notes on their website:

Registration for our virtual convention is now open at the following link: <https://www.alconvirtual.org>. IT'S FREE!! The convention features virtual tours, professional and youth speakers, a Slooh presentation (Google this if not familiar), all 2020 and 2021 youth and general award presentations, over \$3,000 in door prizes donated by our member clubs, our League business meeting, an international star party, and a keynote address by Dr. Jocelyn Bell Burnell, discoverer of pulsars. To be eligible, you must register your name and email address. It only takes a minute to do, and League membership is not required.

Virtual sessions will be held each afternoon and evening via YouTube and Zoom so please take the opportunity to plan ahead and carve out some time for this unique event.

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Let's go back briefly to the AL Observing Program theme that has been discussed over the past several issues. Whether you're targeting completion of an AL Observation Program or just targeting a DSO for a personal logbook entry, consistency of notes and observations should play a firm role in your efforts. Over past issues of *Cape Fear Skies* there have been a few discussions of *Seeing* and *Transparency*. As you've reviewed astronomy resources and talked to other astronomers, you've probably noticed there are many scales and methods for recording and interpreting *Seeing* and *Transparency*. Although there is no "global standard" for amateurs making these determinations, the simple key to success is that you choose a method that suits your needs and is consistent and reproducible from night to night. If you do choose to participate in one of the AL's Observing Programs, this will be a must. As you consider what might work best for you, note what the AL says about it:

Below are two scales that are acceptable for all AL Observing Programs. They are simple to use and require no special equipment. Both of these values can be done very formally using special equipment, but for the AL Observing Programs this level of effort is not required.

Seeing: *How stable is the sky?*

E (excellent) - The brighter stars are not twinkling at all.

VG (very good) - The stars are twinkling slightly, but the brighter planets are not twinkling.

G (good) - The brighter planets are twinkling slightly.

F (fair) - The brighter planets are obviously twinkling.

P (poor) - The atmosphere is turbulent. All objects are twinkling to the points where observation is not practical.

Transparency: *How clear is the sky?*

Transparency is a measure of what you can see in the nighttime sky in spite of dust, smoke, haze, humidity, or light pollution. An easy way to measure this is to use the magnitude of the faintest star you can see. Ideally, this would be looking straight up at zenith. But, to make life simpler, you can use the Little Dipper (Ursa Minor) if you can see it. Here is the scale.

- 1 - *If you can't see Polaris.*
- 2 - *If you can only see Polaris.*
- 3 - *If you can see the two stars on the end of the bowl of the Little Dipper (Kochab and Pherkad).*
- 4 - *If you can see any of the stars in the handle of the Little Dipper.*
- 5 - *If you can see 6 of the 7 stars in the Little Dipper.*
- 6 - *If you can see all 7 stars in the Little Dipper.*
- 7 - *If you can see stars near the Little Dipper that are not part of the stick figure. (I envy your young eyes...)*

Although atmospheric extinction will vary from season to season, and from latitude to latitude, using the Little Dipper is a simple and reasonable solution.

Do take some time to explore various methods for determining *Seeing* and *Transparency* and find a functional and comfortable approach that you can use with every observing session. When you look back at observation notes years from now, that consistency will help you relate “old” and “new” observations of familiar targets.

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Editor’s Note: Used in this Newsletter, “Cape Fear Astronomical Society” may be abbreviated “CFAS” or “CFAstro”.

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:

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- President: Jon Stewart-Taylor
- Vice-Pres: Skip Hagers
- Associate VP: George Pappayliou
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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

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