



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.

May 2022

President's Report *by Jon Stewart-Taylor*

Cape Fear Astro has just participated in two extraordinarily successful public events, both of which were part of the State Wide Star Party. The one in Beulaville drew about 700 people, the one at Carolina Beach was in the neighborhood of 2,000 people (see articles in this edition of "Carolina Skies"). We were able to educate people, and share our love of the night sky. My only regret is that we didn't have more scopes available. As Karl said "They just want to look" and there's no shortage of things to see. We just have to provide the scopes to let people look.

I'm looking forward to Karl's presentation at the next (May) meeting on "Determining Exoplanet Properties".

In June, George will give us a presentation on image capture for astrophotography and will bring his equipment for what will be a "show and tell". In the future, he will give a presentation on image processing. Both of these are best in-person, which we are currently doing. Hopefully, that will continue. (Yes, it will, again hopefully, be available via Zoom – but best in-person.)

In July, we look forward to a field trip to the Ingram planetarium in Ocean Isle. We used to do this about annually and then "you know what" happened.

That's presentations for about half the year: if you have a presentation lurking in you, on any topic related to astronomy or space science, please see if you can bring it to life in the second half of the year.

With the coming of the warm months, work on the Observatory at Starfields should pick up a bit. The committee is currently taking a planning step to determine goals and assign priorities. Two goals which seem like they might come out at the head of the list are a permanent mount for the club C8, and a source of 12V electricity to run telescopes. I expect Committee chair Hank Lyon will keep us posted as the goals are chosen and steps are taken.

We'll be able to see the results at our club observing sessions. Hope you can join us.

NOTE: I heavily edited the 3rd thru 5th paragraphs with updated information, so blame me for any errors! -Karl

UPCOMING MEETING PRESENTATIONS

May – Determining Exoplanet Properties – Karl Adlon

June - Image Capture for Astrophotography - George Pappayliou

July – @ Ingram Planetarium - Program to be determined – Jon Stewart-Taylor

Calendar

May 2022

Date – Event – Time

1 ★ Cape Fear Astro Monthly Meeting ★
CFAS Monthly Meeting - 7:00pm – 9:30pm
212 DeLoach Hall; UNCW
Also simulcast via Zoom

- 02 Moon and Mercury; 16:00 UTC; Moon 2 degrees from Mercury; 20 degrees from Sun; evening
- 06 Eta Aquarids; 08:00 UTC, Eta aquarid meteors; ZHR 50; 3 days before first quarter
- 09 Public Observing, 8 PM; Carolina Beach State Park**
- 09 First Quarter Moon
- 16 Full Moon
- 16 Lunar Eclipse; 10 PM – 2 AM; Total Eclipse of Moon
- 20 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; 3rd Quarter Moon**
- 21 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; 3rd Quarter Moon**
- 22 Last Quarter
- 25 Moon-Mars-Jupiter within a circle of 3.5 degrees; 62 degrees from sun; morning
- 27 Moon-Venus-Pleiades within 1.5 degree circle; 38 degrees from sun; morning
- 27 Moon ¼ degree from Venus; 38 degrees from sun; morning
- 27 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; New Moon**
- 28 Club Observing @ the Club Observatory; Shiloh Road Ivanhoe NC; 7:00 PM; New Moon**
- 28 Moon & Uranus; Moon 1/3 degree from Uranus; 21 degrees from sun; morning
- 29 Mars and Jupiter, Mars ½ degree from Jupiter; 65 degrees from sun; Morning
- 30 New Moon

Astro phenomena from:

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

2022 Public Events

Date	Time	Event	Where
May 7	30 min before Sunset	Public Observing	CBSP
Jun 4	30 min before Sunset	Public Observing	CBSP
Jul 2	30 min before Sunset	Public Observing	CBSP
Aug 6	30 min before Sunset	Public Observing	CBSP
Sep 3	30 min before Sunset	Public Observing	CBSP
Oct 1	30 min before Sunset	Public Observing	CBSP
Oct 1	TBA	International Observe the Moon Night	CFM
Oct 29	30 min before Sunset	Public Observing	CBSP

Where (Locations):

- ★ CBSP: Carolina Beach State Park
- ★ CFM: Cape Fear Museum
- ★ BES: Beulaville Elementary School

Special Interest Groups (SIGs)

Usual meeting dates – watch emails for exceptions

Phenomena: First Wednesday

Both Eyes: Second Tuesday

Astrophotography: As Requested/Announced

Telescope Usage: Third Tuesday

New Astronomer: Third Wednesday

Outreach: Fourth Tuesday

State Wide Star Party, Part 1: Beulaville, NC

by Karl Adlon

Friday, April 8 was the date of the Beulaville State Wide Star Party that Jon, Richard and I supported.

Pepper Hill of Science Alliance (the organizer of the event) says: "We estimate that we served about 700 people" and "The experience really was once-in-a-lifetime for many of our participants".

The venue was the Beulaville Elementary School sports field; a good sized field the length of two adjacent baseball fields. The entrance to the field was at the north end and we were located at the south end. I could see many people and guessed "over 200" but with so many, I could not see the far side of the field but could see that people were still arriving!

At right, Jon is conducting a "Tour of the Solar System". You don't see many people in this picture because it is looking southeast, away from the crowds. Jon conducted these continuously for over 2 hours.

Richard came a bit later and set up on the other side of Jon from me. The one time I looked over there, as the event was winding down, he had a small crowd there, too. He was showing the Orion Nebula through his 8" Dobsonian.

I brought my Meade 8" SCT set up, shown in the picture at right below, where I'm using the finder to aim the main scope at the Moon.

My 31mm eyepiece is 70 degree apparent field and gives about 65X, so the Moon looked large while comfortably fitting in the field of view. Details on the moon were easy to see and all were impressed with the view. Some kids squealed with excitement!

One young man, apparently impressed with the view of the Moon, and while his friend was looking asked if it was real. I passed my hand in front of the scope and his friend confirmed the "occultation". The young man had to see the same thing himself! Perhaps he's on the road to be a questioning scientist?

A couple adults asked about the cost of the scope and where to look for one.

Jon brought a 4" table-top Dob, but didn't finish the 'Tours' until after dark. After that he shared views of the moon through thickening clouds.

With only the 3 of us, it's an understatement to say "we could have used more members".

Below is early with people just arriving. At least twice as many more came!



All pictures courtesy of Science Alliance.

State Wide Star Party, Part 2: Carolina Beach State Park

by Jon Stewart-Taylor with contributions by Terry Herrin and Karl Adlon

On Friday, 22 April, we completed the second part of our public observing sessions for the State Wide Star Party, this time at Carolina Beach State Park. The weather was decent, with clear skies and warm temperatures. As usual for this event, they had many non-observing activities both at the visitor's center and distributed down the lane towards where they had us tucked away from the lights at the visitor's center.

I arrived not as early as I'd hoped, and had to hurry to get the solar system and Sky Scanner set up, plus a big portable table for club business cards. By the time I was done, it was not quite the 7pm official opening time, but there were loads of people. I ran two solar system tours from Sol to Saturn, with a brief discussion of what's after Saturn.

Meanwhile, Terry was waiting for darkness: "They were lined up well before dark, and with no planets or moon to look at, they were just standing in line waiting until it got dark enough to see something."

Karl was in the same situation: "I came with my Meade 8" SCT and had at least a dozen people lined up to look well before I could see Mizar, my intended target."

By that point, it was too dark to do another solar system tour, but it was dark enough to try to find things in the sky. Targets were somewhat restricted based by the trees and the light pollution.

Terry chose a bright open cluster: "Deciding on M35 in Gemini, I began looking for it well before I could see it. It's an easy object to find once the dimmer stars at the foot of Gemini become visible. As time wore on and I kept looking, I was starting to feel a bit of pressure with all the people just standing there. Finally, it came into view."

Karl made a change to a target of opportunity: "As it got dark, I saw [Procyon] in the southwest a bit higher than the trees and decided it was good enough."



I was able to sweep up M44 (the Beehive), and stayed there for the whole night. It was apparently a good choice of target: it showed up pretty well in the 4" scope, and the folks were generally impressed with the view. Terry said: "Near the end of the night I moved to M44 and I probably should have moved to it earlier."

It seemed like the line in front of me was pretty steady at 10-15 people all night long, and didn't really thin until well after the official end of the event at 10pm.

Terry had the same experience: "The viewing started and didn't stop until around 10:15. It was a never ending line the entire time. I never stepped away from the scope, with one person after another getting a view." Karl noted: "The waiting line became much longer; too long to count heads (high and low)."

The last visitor left between 10:15 and 10:20, and then it was time to pack up. Visitors also collected quite a few club business cards, especially the "buying a scope?" advice cards.

Thanks to everybody who came with scopes, and dealt patiently with lots of visitors. Many thanks to Skip, who came despite not being able to bring his scope due to hand surgery.

I don't believe we have more Big Public Events until

International Observe the Moon Night in late September or early October. But, we have a bunch of our normal monthly public sessions at CBSP. Hope you can join us there. Karl summed it up: "That is what I like about showing the public something through the scope - you can "wow" them with the Moon, Jupiter or Saturn, but when those aren't available, almost anything will do. They just want to look."

Photos courtesy of the Cape Fear Museum.





Get to Know YOUR Astronomical League

www.astroleague.org



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.

AL Home Page	www.astroleague.org
Observing Programs	https://www.astroleague.org/observing.html
NEW! May 15 Total Lunar Eclipse Guide	https://www.astroleague.org/files/u220/2022%20May%20lunar%20eclipse.pdf
NEW! May Night Sky Guide	https://www.astroleague.org/files/u220/2022%20May%2015.pdf
Galaxy Season Observing Challenge	https://www.astroleague.org/content/al-observing-challenge-special-observing-award
ALCon 2022 Information	https://alcon2022.org/
Current issue of <i>Reflector Magazine</i>	https://www.astroleague.org/reflector/march-2022-reflector-magazine
CFAS ALCor	Hank Lyon, hlyon8448@gmail.com
Reminders and AL News Bites!	Stay tuned for more observing challenge postings. Globular Clusters coming soon! Also, the schedule for ALCON 2022 is now posted on the AL website, see the information link above.

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 it's general information or detailed coordination of observing program completions for certification. Check back here each month to see any new postings or reminders.

Copyright © 2022 Cape Fear Astronomical Society. All rights reserved. For permission requests, write to the Society, addressed "Attention: Permissions Coordinator," at the address below.

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

Dues: Dues for 2022 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/>