



President's Report

by Jon Stewart-Taylor

"The perfect is the enemy of the good." I was reminded of this saying after the last three scheduled Club Observing sessions at the observatory at Starfields. As is typical of SE NC during June through August, the forecast for each night was far from perfect. The NWS predicted partly cloudy skies. The Clear Sky Chart predicted poor or even bad transparency. Meteoblue predicted the top layer near 100%, and usually low clouds in the 30-50% range. Altogether unappealing and leading to low expectations.

Despite that, all three nights were better than expected. Granted, the skies were far from cloudless, but there were large areas of open skies with constellations shining through. It wasn't crystal clear transparency, and the limiting magnitude wasn't the best for the site, but it was well into the 5.5 range at zenith. Although not perfect, the nights gave some very good viewing of the vanishing spring objects, the featured summer Milky Way, and even a bit of preview of fall. Plus, Saturn burned through the haze nicely, as did Jupiter when it rose a bit later.

Not "perfect" nights, but three very good ones. A bit of company would have made it even better. So, even if the forecast isn't the best, consider coming out on scheduled nights. If the nights are good we can get some observing in. Even if they're less than good, we can enjoy the company of Cape Fear Astronomers. Perfect.

★ ★



**Gus Grissom's
Liberty Bell 7**

Lost at sea July 21, 1961
Recovered July 20, 1999
– the 30th Anniversary of
the First Moon Landing

Located at the
Cosmosphere in
Hutchinson, Kansas,
which also includes the
Apollo 13 and Gemini 10
capsules.

The Mercury capsule is
surprising small!

More at:
[https://en.wikipedia.org/w
iki/Cosmosphere](https://en.wikipedia.org/wiki/Cosmosphere)

Calendar

September 2022

Date – Event – Time

- 03 First Quarter Moon
- 03 Public Observing, 7:30 PM – Carolina Beach State Park**
- 07 Juno - Asteroid 3 Juno at opposition 0600 UTC
- 10 Full Moon 09:58 UTC Moon is Full
- 11 Moon and Jupiter; 17:00 UTC; Moon 1.5 degrees from Neptune; 173 degrees from Sun; midnight
- 11 ★ Cape Fear Astro Monthly Meeting ★**
CFAS Monthly Meeting - 7:00pm – 9:30pm
212 DeLoach Hall; UNCW
Also simulcast via Zoom
- 16 Club Observing @ Starfields (the Club Observatory); 7:00 PM; 3rd Quarter Moon**
- 16 Neptune at opposition; 22:00 UTC
- 17 Club Observing @ Starfields (the Club Observatory); 7:00 PM; 3rd Quarter Moon**
- 17 Last Quarter Moon; 21:51 UTC
- 23 Equinox; 01:06 UTC; September (northern autumn) equinox
- 23 Club Observing @ Starfields (the Club Observatory); 7:00 PM; New Moon**
- 24 Club Observing @ Starfields (the Club Observatory); 7:00 PM; New Moon**
- 25 New Moon; 21:53 UTC
- 26 Jupiter at opposition; 19:00 UTC

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

2022 Public Events

Date	Time	Event	Where
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

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

September Meeting Program

★ ★ ★ ★ ★ Stars - Part 1 ★ ★ ★ ★ ★

Roger Blake will present Part 1 of a two part Presentation on stars.

Part1 will start from the creation of the universe and track the birth of stars of all types and show how their evolutionary tracks lead then to the main sequence lifeline on the Hertzsprung - Russel (HR) diagram. This should provide a pretty good beginning to understanding of what the HR diagram represents.

Part 2 (later presentation) will track how all the stars die and hopefully explain how all the strange objects like red giants, dwarfs, planetary nebula, neutron stars, black holes, etc are created and show their relationship to one another.

New Service for Cape Fear Astro E-mailing List

by Jon Stewart-Taylor

Most Cape Fear Astro members have almost certainly noticed the long period during which the e-mailing list hosted at "the-nest" was out of service. This caused inconvenience to the members and disruption of club communications. This was not the first or only issue with the service. After several weeks with no functioning list, the consensus of the club was to find a new e-mailing list service.

All club members were welcome to suggest potential replacement services. One service in particular was referenced more often, with several members already using other lists provided by the same service: groups.io. I created a test list on the service, and invited members to try it out. After a week to allow more suggestions, the Executive board debated (briefly) on the various services, and decided that the best way forward was to make the test list official.

Invitations to the new list were to everyone on the old list at "the-nest". As I write this, 28 of the 40 list members have joined the new list. If this doesn't include you, please do reply to your invitation e-mail, or send mail to the subscription address: capefearastro+subscribe@groups.io

The new service has several additional features above those provided by "the-nest". You can learn about them at groups.io. If you need help subscribing, or understanding the new list and its features, contact me or Terry Herrin for assistance. I plan to update the "new member packet" section on the e-mailing list so people know how to subscribe, access the archive, and so on.

What will become of our list on "the-nest"? For now, we plan to leave it in place. It has recently started echoing e-mails sent to it to the list members, so at least for now you can use it again. And, we'll be downloading all the archived messages for storage away from "the-nest" to preserve them for the future. However, the Board are convinced that it's only a matter of time before it breaks again, with no guarantee of when or even if it will be fixed next time.

So: everyone please make sure you're on the new capefearastro@groups.io e-mailing list. I believe it will serve us well into the future.

Gate at Observatory Stolen, Replaced

by Jon Stewart-Taylor

Hank Lyon went to Starfields to work on the observatory Friday, and sent me a text message: "At Starfields, what happened to the gate?" then added "It's not present."

This was news to me, as when I'd left the previous Saturday the gate was present and accounted for. During the following exchange of texts, he noted the gate hadn't been run through or damaged, it was simply removed, and posted an image to clarify:

Photo by Hank Lyon



Obviously concerned, he checked the observatory shed and other items and property, but nothing else seemed to have been damaged or stolen. Apparently the thieves were just shopping for a gate, and pulled it from the ground posts and all.

I was astonished. It never occurred to me that someone would steal a gate, of all things. I reported it to the Pender county Sheriff's Office. They sent an officer out, who looked at it and wrote up an incident report. They'd never heard of a gate being stolen before either.

Saturday i bought new replacement gate halves, posts, and combination lock at Tractor Supply. They'd never heard of someone stealing a gate before either. I got both posts and one of the gate halves installed Saturday, and went back Sunday to install the remaining half and the lock.

Photo by Jon Stewart-Taylor

The combination on the new lock is the same as on the old, so if you had the combination, it's still correct. Because this is the entrance to the whole property, and not to the observatory, Kathleen and i are covering the cost of the replacement gate and lock with no expectation that the club should contribute. The new gate span is only 16' rather than 20', but it should still let everything through, even a Big RV if anyone wishes to bring one in.



Congrats to Kat!

by Karl Adlon

Kat shared her Certificate with me and I thought I'd share it with you all!



One of My First Astrophotography Attempts - M101

by Karl Adlon

A bit more than 10 years ago (May 10, 2012), we had a decent night at our Eastern Iowa club observing site.

You know how sometimes you want to see lots of things or image lots of things in one night? And you know the result – you don't spend enough time on any of them to do them justice.

One of my targets was M101. M101 is an interacting galaxy as is evident seeing the “kink” in the spiral arm.

Below is an image by **Bryan Krafczick**, taken with an 8” f5 telescope using a Canon 600Da camera at ISO 800. It is a stack of 150 exposures of 3 minutes each for a total of 7.5 hours! You can see the “broken” spiral arm.



My picture (next page) is nowhere as good. I used a Canon 20D – an early DSLR with a tiny viewscreen – and a 4” F5.4 refractor. My mount did not have a polar finder, so I limited exposures to 90 seconds. And I can't remember why, but I only took 7 exposures for a total of 10.5 minutes.



On the frames, M101 was rather small, so in stacking I applied a 2X drizzle, which helped. I also applied a small amount of wavelet processing using Registax6 and adjusted the final image with Photoshop Elements.

It's not going to win any awards but I hope it shows what can be done.

And that more can be done by focusing on fewer objects and concentrating on those, whether doing visual work or doing imaging.



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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.

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NEW! Solar Neighborhood Observing Program	https://www.astroleague.org/content/solar-neighborhood-observing-program
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Current and Past Issues of <i>Reflector Magazine</i>	https://www.astroleague.org/reflector/april-2022-reflector-magazine
CFAS ALCor	Hank Lyon, hlyon8448@gmail.com
AL News Bites and Reminders	<p>13 new Master Observers were recognized at ALCon 2022. This is a lofty goal to achieve! Do you aspire? See who they are and what is required to obtain this recognition.</p> <p>Your quarterly <i>Reflector</i> magazine will arrive via US Mail unless you specify the digital/email version. Please let your ALCor know your preference.</p>

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 here 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: 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/>