

## **First Light Lite**

October 1, 2021

Jim Lynch – Editor

### **Message from the CCAS President**

As the rate of change of things has been slow due to Covid sticking around, there has been comparatively little to report this month that wasn't in last month's newsletter. So, I'm going to keep it brief this month, and attach last month's newsletter for those who might want some back-story.

### **1) Ramping Up Our Activities (mandatory Plan B update)**

#### **Lecture series**

We have some great speakers lined up (see below) and will be continuing our book give-away program for any students attending. Live lectures look increasingly unlikely this fall (up until New Year's, at least). The "delta spike" has deflated our hopes of an earlier return to in-person lectures indoors. As always, safety has to come first.

#### **Star Parties**

Our WSO star parties were shut down for a year and a half during the pandemic, but it appears we are now back in business! We just have been notified by the DY Regional School District that we will be able to host events at the Werner Schmidt Observatory (WSO) on the DYHS campus grounds, and our first star party is scheduled for October 30<sup>th</sup>. It will be outdoors, and will be a combination of "Electronically Assisted Astronomy" and binocular astronomy, as discussed in last month's newsletter. And again, it will be safety first.

#### **School Projects and Activities**

At this point in time, we are still discussing with the local schools (DYHS, BHS, Sturgis) what is possible and what is not this fall.

## **2) Day of Astronomy**

Given permission for outside events at WSO, we are planning a Day of Astronomy event at the Werner Schmidt Observatory (WSO) for the public and our club members and friends. It is looking like sometime in late October, probably in tandem with our first star party. We will send out notices (email and other) when this solidifies, as well as post it on our web calendar. Again, details are to be found in last month's newsletter.

## **3) Website**

If you look at our website, you will see the following updates: 1) an updated introduction by the CCAS President, 2) an updated calendar, with speakers and their topics included, 3) a complete list of this year's and previous year's speakers (back to January 2017) and their topics, and 4) this year's and previous year's FLL newsletters. Our apologies for the delay in updating.

## **4) Speakers**

### **Last Month's Speaker**

**September 16<sup>th</sup>, 2021**

**Dr. Jim Lynch, CCAS and WHOI**

Due to a change in scheduling, Jim Lynch filled in as speaker last month. His topic was "An Introduction to CCAS and Amateur Astronomy." The PPT for the talk is attached, and is pretty self-explanatory.

### **Future Speakers (Zoom)**

**October 7<sup>th</sup>, 2021**

**Dr. Jim Head, Brown University**

Dr. Jim Head of Brown University, who has given us two excellent talks on Lunar Exploration and the Chinese Space Program, has offered to talk this October about the latest news from Mars, which should be very exciting. Perseverance and a number of other rovers and orbiting craft are making Mars a busy place these days, and there should be plenty to relate and synthesize!

**November 4<sup>th</sup>, 2021**

**Dr. Daniel Davis, Stony Brook University**

Dr. Daniel Davis of Stony Brook University, the co-author with Brother Guy Consolmagno of “Turn Left at Orion,” will give the November talk. His original intent was to show some on “hands on” astronomy projects for amateurs. However, we are still very much in “hands off” mode, so that aspect of his talk will wait for another day. But Dan emailed that he would adjust to the situation, saying: “I'd like to make it more of a follow-on to yours, focusing on some of my experiences of what you can see and do with a small telescope using objects in Turn Left at Orion as a starting point.” We will, as planned, have signed copies of his book to distribute to students, and we hope they will be interested in some of the things that amateurs can see and do!

**December 2<sup>nd</sup>, 2021**

**Dr. Delilah Gates, Princeton University,**

Our Guest Speaker in March, Dr. Jim Gates, mentioned in passing and with more than a slight hint of pride, that his daughter Delihlah was finishing her PhD work in General Relativity (Black Holes) at Harvard this last spring. Being a shameless opportunist, I cadged the link to her thesis defense and also asked her if she would be interested in giving a talk to our club. Happily, she agreed and her abstract is below. We were hoping that we would be able to have this as a “live” event, but as mentioned, the facilities we use weren't planning to open until September (and even that is uncertain now.)

Her topic should ring a bell with our members, in that Dr. Tony Stark gave a talk about the Event Horizon Telescope and its images when they first were

disclosed to the public. The effort to extract information from these images about black holes and their environs has been ongoing since their appearance (and actually before), and Dr. Gates will provide us with some insight into how that effort is going!

### **Title: Observational Signatures of Black Holes: Learning from Light?**

**Abstract:** Black holes are a prediction of Einstein's theory of general relativity and are the most extreme gravity regions of our universe. With experiments like the Event Horizon Telescope, imaging black holes has transformed from science fiction to science fact. What can we learn about black holes from imaging the light that bends around them? What signatures in black hole images tell us how big they are and how fast they rotate?

### **Spring/Summer 2022**

Dr. Alyssa Goodman of Harvard University, whose work on the "Radcliffe Wave" discovery has been prominent in the news, has also agreed to talk to CCAS this coming year. We had promised Dr. Goodman some direct contact with the local students, but until the delta variant is under control, that is not yet possible. Her exact topic/title is TBD.

Dr. Francesca Fornasini of Stonehill College has also agreed to talk to us, most likely in February. She specializes in early star and galaxy formation, and her exact topic will be announced in the near future.

## **5) Star Parties - Schedule**

We are again posting our "usual information" as well as an event schedule, but please note that given the resurgence of the pandemic via the delta variant, these dates and plans may change. Please see the website for up-to date information.

Star Party Dates:

September No star parties scheduled – still setting up our "modified format!"

Oct 30;

Nov 6, 27;

Dec 4, 11.

## Star Party Information:

A Star Party is a scheduled event "at the WSO Dome" usually starting at 7:30pm in the fall, winter, and spring (8:30 in the summer because the sun sets later.) Our EAA setup will be available for ~2-4 hours from when the sun sets.

Not just telescopes will be available: a CCAS member who knows the groupings of stars in the night sky (constellations) and how those move with season and time, will point to various stars, planets, and constellations with a laser pointer, describe what is being pointed out, and invite binocular observation.

When at our website, please click on: " Meetings & Events" on the Home Page and then, ...for Schedule of Meetings and Star Parties and anything else scheduled, click on " Calendar". If you need to see a month later than the current month, click on the arrow pointing to the right... to see more info on each item in the calendar, click on each item.

If you can, please visit the calendar at our website once a month to track us "opening back up to normal," especially as we start scheduling Star Parties again.

If in doubt about the weather, call 508-398-4765 15 minutes or less before the event starts – no answer means the event has been cancelled. Cancellations may also be reflected on the calendar.

All our scheduled Star Parties are free of charge and open to the public. One of the main missions of CCAS is to invite folks to enjoy the night sky and learn something about it.

For more info about The Schmidt Observatory click on " Observatory" from the home page and look thru the items listed, particularly "Mission" and "Facility." At "Facility," please click on the underlined "Werner Schmidt Observatory" at the top of the page to go to a map showing the location of the observatory behind Dennis-Yarmouth High School.

### Directions:

To get to a WSO Star Party, exit from the Mid-Cape Highway, Rt 6, at Exit 8 and turn left (toward the south) at the end of the ramp. Drive down Station Avenue a mile or so, and, when you reach it, on the left, drive into the northernmost road leading onto the Dennis-Yarmouth High School campus. Then go all the way thru the gate until you see the Dome and parking spots. Don't worry about a sign on the fence near the open gate which suggests "authorized" folks only. If the Dome is open, you are authorized.

To get to the Library at Dennis-Yarmouth Regional High School where our monthly meetings are usually held (again, check for updates), drive into the southernmost road leading onto the campus, drive along the football field until you can turn left behind the main HS building, and park near and go

into the first "back door" you can see. Directions to the Library are posted in the hallways when we have meetings there.