

First Light Lite

April 1st, 2025 (No Foolin!)

Jim Lynch – Editor

Message from the CCAS President

We've adopted the strategy of going with "weather windows" for our observational events, much like oceanographers (which a number of CCAS members are) and this strategy worked out rather well this last month. We slipped both a good outreach star party and an equally good WSO star party in between the clouds, wind, and cold. Amateur astronomy is certainly a weather-dependent hobby, and this last month we seemed to have gotten good forecasts to work with.

We are planning, as usual, another star party in April for the week of the New Moon, which is April 21st-April 26th. (USUAL NOTE: The week is a *weather window* for one star party, and not a weeklong series of them! Please look to your email for an announcement of the exact day, or to the website. We need to make the call on weather conditions mostly on the same day, as forecasts of more than two days are unreliable.)

We are also going to try to revive and modify an older CCAS monthly meeting at which the members who are interested in observations work on repairing and learning our "gear" and also making some observations later in the evening. This is not a public event, but for club members only. This additional meeting worked well for CCAS in the pre-Covid days and should provide a good opportunity for learning and doing some observing. We are looking initially at the window of either the third Tuesday or third Thursday of the month, depending on which has better weather. And if the weather is poor, we can still work on equipment and learning tasks. The dates for April are April 15th and April 17th, between 7:00 and 10:00 PM. I hope we get a good turnout at this!

And we will be having an in-person meeting (plus Zoom) at DYHS at 7:30 PM on Thursday April 3rd following our usual open invitation H&K dinner at 5:30. This meeting will feature our monthly speaker, who will be speaking remotely this month. More information about our speakers, including this month's, can be found below.

Star Parties, Meetings and Events Last Month

Last month was a pretty active one for CCAS as regards activities and outreach. Last month's March 6th talk was a general club meeting where we discussed our activities and directions and generated a lot of good ideas.

On March 11th, we had an outreach star party at Sandwich Junior High School, which turned out surprisingly well despite a cold wind and a well-lit football field off to the side. SJHS teacher Ms. Amy Ferreira and 20-30 parents and students came out and were treated to a beautiful crescent Venus just at sunset, which showed up beautifully in the 8" Dobsonian that Brian Twohig manned. Alan Collette had his Seestar set up, and showed people how you could make near real time image of some of the night sky's feature attractions. And the pointer/binocular tour went "okay" until the football field lights were turned out, after which the dramatic difference in what could be seen thrilled everyone, and also pointed out how much of the sky we lose to lighting. Schools, of course, have to be well lit due to safety concerns, as do many other venues. But it comes at a cost when we consider the night sky. ☹

On March 11th, CCAS participated in the Falmouth HS STEAM fair for the second year in a row. As the year before, it was a great event, and very upbeat. Anything that can be done to promote science (including our own favorite one) is wonderful to be part of and is needed these days.

Finally, we had our own "usual" star party at WSO on March 27th. We were very lucky to get a beautiful evening wedged in between some very cloudy and rainy weather, and got some nice outdoor observations and a good indoor lecture in. The party was well attended, and also taught us some lessons about how to better structure our star parties going forward. The outdoor observations started just past sunset, so that it took an hour to get a reasonably dark sky for them. Also, having just one computer available inside the observatory limited us to looking either at the talk given or at the main scope working. We need to have both going simultaneously, which should not be hard, as we have two large screens and a few extra computers. Scheduling our star party components is a bit of a juggling act, but one we can improve.

Some Projects for the New Year

We have previously discussed trying to get some “community projects” started for club members, which can be pursued both individually and in groups. These are ideal for our new “work nights”

Astrophotography is one, and if any of the readers of this newsletter have purchased a Seestar or Unistellar scope, or want to use CCAS’s (for members), these scopes make entry level photography of the sky easy. We’re looking at making a collection of new sky photos this year, and the response so far has been great. We already have some impressive collections in progress. We are also looking at spectroscopy, exoplanets, occultations, etc. Lots of good ideas floating around! Additionally, Jonathan Hatch has written up a game plan for more of these activities, and this will be a topic for our Third Wednesday phone call this month!

Hybrid Meetings and Coming Speakers

Our hybrid meeting format has been working out reasonably well, allowing us both an in-person H&K dinner and DYHS meeting and also a remote Zoom link for those who can’t attend the live event. The upcoming meetings will mostly be in this format. Check the newsletter and website for month-to-month variation.

As to speakers, we have a pretty darn good roster lined up for the spring and summer. Let’s go through that list next!

This Month’s Speaker: Dr. Rob Zellem, NASA Goddard Space Flight Center

Topic: Exoplanets, the Roman Space Telescope and Future Spaceflight Missions

Date: April 3rd via Zoom and at DYHS at 7:30 PM (speaker remote)

Bio: Dr. Rob Zellem is an astrophysicist at NASA’s Goddard Space Flight Center. His research focuses on the characterization of the atmospheres of exoplanets using both the transit and direct imaging methods. Rob is Deputy Project Scientist for NASA’s Nancy Grace Roman Space Telescope. He is also a member of the Roman Coronagraph Project Science team where he led the development of the science calibration plan. He is the Project Scientist and Lead for Exoplanet Watch, a citizen science project to observe transiting exoplanets to update their ephemerides to ensure the efficiency use of large telescope time. He is the Ground-Based Sub-working Group co-lead for Pandora, whereby he is coordinating ground-based observations to support both the operations and scientific interpretation of Pandora

data. He is also a co-lead for NASA's Nexus for Exoplanet System Science (NExSS) and a science team member for the NASA's CASE contribution to ESA's Ariel mission.

If you'd like a more personal description of Rob's background and interests, he has a very nice blurb on: <https://science.nasa.gov/people/rob-zellem/>

Next Month's Speaker: Ms. Sarah McCandless, NASA JPL

Topic: Planetary defense from asteroids and space junk - NASA Engages.

Date: May 1st via Zoom and at DYHS at 7:30 PM (speaker remote)

Bio: Sarah Elizabeth McCandless works for NASA's Jet Propulsion Laboratory (JPL) as a navigation engineer. She likes to say that makes her an "interplanetary Google Maps"! She develops multi-mission software tools, and performs operational as well as pre-launch orbit determination analyses.

She is currently the Orbit Determination Lead for Lunar Trailblazer and is actively supporting Europa Clipper and NEO Surveyor. She has supported a number of other flight projects including Artemis I, Mars 2020, and Psyche. She earned a B.S. in aerospace engineering and a minor in French at the University of Kansas and an M.S. in aerospace engineering from the University of Texas. Outside of work, Sarah Elizabeth enjoys flying Cessna 172s, hiking, and reading. Fun Fact: I've visited 47 of the 63 US National Parks!

Future Speakers

June 5th – Dr. James Dottin III, Brown University, Topic TBD

July 3rd – Dr. Avi Loeb, HSCfA, Topic TBD

August 7th – Dr. Tony Stark, HSCfA, Topic TBD

September 4th - Dr. Mario Motta. Topic: Building and Using his 32" Telescope

This is a ***Stellar*** list of speakers, and we are fortunate that they are willing to donate their time to speak to us. I hope everyone will Zoom in, and if possible also join us at H&K for our pre-talk dinners!

Directions to Dennis Yarmouth HS and Werner Schmidt Observatory

For information on the location of our Dome behind Dennis-Yarmouth High School, click on the purple button "Old Website" and once there, click on "Meeting Location" viewing the two maps that are there: external for the Dome, and internal to locate the high school library where meetings are held.

For meetings, drive along the south entrance road and go around behind the main building. Park in the lot about halfway down the building and go in the back door and turn down the hall to your left to find the library.

For Star Parties at the Dome, drive in the north entrance road all the way past the north side of the main high school building, through a gate, and on to park near our Dome. You can (and should) park on the grass there.

H&K directions

CCAS hosts a dinner gathering for the speaker (if available), members and friends on meeting nights (just before the meeting) at the South Yarmouth Hearth & Kettle restaurant at 5:45pm; (the meetings begin at 7:30 at D-Y.) Please join the group to dine and talk about all things interesting, especially astronomy, before our meeting. The H&K is at 1196 Rt 28, South Yarmouth, about a half mile west of the Station Avenue/Main Street intersection with Rt 28 (stop light). **NOTE:** Since Covid, we have a mix of fully remote and hybrid in-person+ remote meetings. Check the newsletter and/or website to see what the format is each month! There are no dinners when the meeting is fully remote.