First Light Lite

March 1st, 2026 (Is it Spring yet?)

Jim Lynch – Editor

Message from the CCAS President

If you, like I, are a Cape Cod resident, we are both looking out the window at large drifts of snow and thanking the repair crews for now having some power and heat in our houses. The last week was not so much fun for most of us on the Cape.

In addition to the personal inconvenience, the blizzard shut down CCAS' activities for the week as well. A school visit, talk and star party on Martha's Vineyard was cancelled as well as our regular WSO star party. This winter has made travel harder and outdoor observing pretty close to impossible.

But, when the ground clears and the temperatures eventually stay above freezing, we will be back outdoors, we promise. In the meantime, we are keeping busy with indoor activities and preparations for the spring. One of these activities that you might enjoy is our social dinner before the First Thursday talks. Currently we are doing this at the Sea Dog restaurant in South Yarmouth, as the H&K restaurant shut down recently. Check the end part of this newsletter for more information.

Outreach

I won't go into detail, but we currently have requests for talks and star parties from more than half a dozen venues, schools, and organizations, and we will do our best to honor these requests – it is one of our Society's core functions. We very much enjoy interacting with people about astronomy and STEM. If you are interested in helping us staff some of these events, please contact us via cca@capecodastronomy.org and we will provide you with further information. We *really* could use a few extra hands!

But it would be good also to repeat that star parties, whether at WSO or remote, are outdoor events, and extremely cold weather (below 32 degrees) and/or snow and ice cover can pose a health hazard to the attendees. Someone slipping and falling on snow and ice in the dark is not something we'd wish to risk. Nor is exposure. Moreover, outdoor amateur equipment doesn't work well below ~30 degrees, even if you run it remotely from indoors. So, pocketing our pride some

weeks makes sense. (We also deal with cloud cover, which is why we have gone to one-week windows for obtaining a good observing night at WSO. But cloud cover is not very hazardous - usually!)

Call Out - Dr. Jim Head

Many of our members know fellow member Dr. Jim Head, a distinguished Brown University professor, either personally or through his talks to our club and friends on the US and China space programs and on planetary geology, concentrating on the Moon and Mars. We also know that he mentored the Apollo astronauts on geology and has amazing stories about this program. What you might not know is that he is again mentoring lunar landing efforts, this time being with the Artemis program astronauts.

There was a very nice interview with Jim about this in the Sunday Boston Globe, which I hope you will read. Here is the link to it:

https://mobileapp.bostonglobe.com/03012026_61929e64-11c3-11f1-8a08-0f07aea460e0/content.html

Blood Moon/Worm Moon

Another item that has been in the news is the total lunar eclipse that will happen on March 3rd . It will turn the Moon a blood red color due to dispersive refraction in the Earth's atmosphere. It starts at 4:50 AM EST and reaches totality at 6:33 EST. Unfortunately for us in the Land of the First Light (i.e. first to see sunrise), sunrise is at 6:13 AM, and the sky begins to lighten about an hour before. But you still can catch part of it! If you're west of Cape Cod, you'll be in better shape, depending on your time zone. Anyway, it's a great sight, even if you only catch part of it!

Astrophotography

Lecture 5 of the Kalamazoo Astronomical Society's world-famous Introduction to Amateur Astronomy lecture series will be covering the basics of astrophotography on March 14th, and you might still be able to sign up for it on https://www.kasonline.org/amastro.html. Having seen the previous four lectures, this should be a very clear and informative talk, and worth spending two hours to listen to.

A second opportunity will be offered to all by CCAS later this year and is currently in the organizational stage. Peter Pilon and other CCAS members are forming an astrophotography group that will focus on using the new, inexpensive

smart scopes as well as our dome telescope at the Werner Schmidt Observatory. He and other experienced members are planning to offer a course on that for members and friends. More details will be forthcoming in the near future, but if you're interested in astrophotography, please contact our Cape Cod Astronomy email [cca@capecodastronomy.org] and let us know.

Initiatives and Committees

We again wish to devote some time to committee structure and currently are looking at the following committees: Website, History, By-Laws and Organization, Advertising and Publicity, and Membership. These committees should not be overly strenuous as regards workload, and hopefully you might be interested in engaging in one if you have not done so already!

Speakers

March 5th Speaker: Dr. Tracy Becker, Southwest Research Institute (SWRI)

Place: Both at the DYHS library and on Zoom (speaker will be remote)

Title: NASA's Europa Clipper Mission: How the Ocean World Explorer Observed the Interstellar Comet 3I/ATLAS

Abstract: Under the icy shell of Jupiter's moon, Europa, lies a liquid water ocean and the tantalizing question of whether that ocean could be suitable to support life. NASA's Europa Clipper Mission is on its six-year journey to Europa to answer that very question. While in route to the icy moon, the Europa Clipper spacecraft had the serendipitous opportunity to observe the icy interstellar comet 3I/ATLAS as it passed through our Solar System. This presentation will discuss what the Europa Clipper mission is designed to uncover about the mysterious ocean world, Europa, as well as what it has revealed about icy worlds from distant star systems.

Biography: Dr. Tracy Becker is a planetary scientist at the Southwest Research Institute in San Antonio Texas. She specializes in the study of moons, planetary rings, and asteroids. She is the Co-Deputy PI for the Europa-UVS instrument on the Europa Clipper mission, and the Deputy PI for the Alice UV instrument on the New Horizons mission.

April 2nd Speaker: Dr. Jacquelynne Milingo, Director of Astronomy, Maria Mitchell Association

Place: Both at the DYHS library and on Zoom (speaker will be live)

Topic: Stewarding the Past, Present, and Future of Astronomy at the Maria Mitchell Association

Abstract: In this talk I will share my journey to the Maria Mitchell Association (MMA) and my vision for astronomy at MMA including the observatories, the role of our long-standing NSF REU program, our glass plate collection, and engaging different communities in the mission of MMA.

Biography: Dr. Jackie Milingo is an observational astronomer who earned B.S. degrees in Physics and Astronomy from the University of Kansas, and a Ph.D. in Astrophysics from the University of Oklahoma. Dr. Milingo joined the MMA after a year-long AAAS Science and Technology Policy Fellowship at the U.S. National Science Foundation, where she was a Fellow in the Office of Legislative and Public Affairs, as well as the Astronomy Division in the Math and Physical Sciences Directorate. Before her fellowship, she was a professor in the Physics Department at Gettysburg College for over twenty years.

May 7th Speaker: Dr. Keaton Bell, CUNY NY

Topic: White Dwarf Asteroseismology

Date: May 7th, 7:30 PM

Place: Both at the DYHS library and on Zoom (speaker will be remote)

BIO: Assistant Professor Keaton Bell is an observational astronomer who studies the structures of white dwarf stars from their vibrations. Dr. Bell earned his PhD at the University of Texas at Austin, where he observed for over 200 nights on the 2.1-meter telescope at McDonald Observatory, and now he mostly works with video data of the entire sky collected by NASA's Transiting Exoplanet Survey Satellite (TESS). Dr. Bell worked as a postdoc at the Max Planck Institute for Solar System Research in Göttingen, Germany, and was an NSF Astronomy and Astrophysics Postdoctoral Fellow at the University of Washington before joining the faculty of the Queens College Physics Department of the City University of New York (CUNY) in 2022.

Abstract: Queens College astronomer Keaton Bell uses video recordings from space telescopes to measure vibrations of dead stars called white dwarfs. White dwarf stars are the glowing hot embers left over when most stars run out of nuclear fuel. Some white dwarfs vibrate spontaneously, revealing resonant frequencies of

the stars that can be used to map their interior structures. This presentation will describe the physics of stellar vibrations by analogy with the physics of musical instruments, which Keaton teaches a course on at Queens College. We will discuss the importance of studying white dwarf stars and review how the QC White Dwarf Research Group studies their structures by interpreting video recordings of vibrating white dwarfs. This talk will explain some of the newest breakthroughs in the field of white dwarf asteroseismology.

June 5th Speaker: TBD

July 2nd Speaker: TBD

August 6th Speaker: Dr. Antony Stark, HSCfA

Topic: "The tensor-scalar relation at the start of the Big Bang."

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.

Sea Dog restaurant directions (No longer H&K, which recently closed)

CCAS hosts a dinner gathering for the speaker (if available), members and friends on meeting nights (just before the meeting) at the Sea Dog restaurant at 5:30 - 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 Sea Dog restaurant is located at 23 White's Path in South Yarmouth. Its phone is 508-694-6020. Chris Lynch has called ahead to confirm this new venue (as the H&K closed recently.)

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! Sometimes there are no dinners when the meeting is fully remote.