

First Light Lite

June 7th, 2018

Jim Lynch - Editor

NOTE: Due to my (JFL's) younger daughter graduating nursing school, the latter part of this month was "otherwise occupied," and so I was late getting First Light Lite out. My apologies, especially to our speaker tonight, Dr. Ken Brink. Also, the May Society minutes from the last meeting, as well as the complete new summer Star Party schedule, will be put out in the next week as an addendum to this issue. Again, apologies!

May and Early June News

May heralded a significant staffing change at the Werner Schmidt Observatory. Rather than have me paraphrase, allow an email from Joel Burnett to explain.

Hi Friends,

Charlie Burke has accepted the position of Programs Director, Werner Schmidt Observatory. Charlie will be designing/planning, coordinating the actions, equipment and staff for star parties, tours and visits to the observatory. He will need staff support and working equipment. I eagerly anticipate the changes and fresh direction Charlie will bring to the WSO!

Thank you for the fantastic support you gave me during the last five years. I will be at many star parties to come and hope to see you there. Congratulations again Charlie!

Warmest regards,
Joel Burnett

Let me add my Thanks to Joel, and Congratulations to Charlie!!

However, May was a so-so observing month, and the star party, while held, was typical of the month's weather. A less than warm welcome by Nature for our new WSO Programs Director, but one that all of us that live on Cape Cod become used to!

As new Programs Director, Charlie is looking to get in at least one high quality star party a month, and let me pass on a message from him (initially to me) for June:

June 16th is best night for the star party. We need people to operate the following scopes; Meade 16, Odyssey 18, Celestron 8 and big binoculars on trapezoid mount, plus help to meet and greet people and operate the astronomy program on the big screen. Can you put out a call for help so that we can be sure we have enough people to make this work ?

So consider the call for help to have been posted, Charlie! And we'll mention it at the meeting as well!

A second event, this time in early June, was the opening of the WSO to Dennis Yarmouth Middle School students on June 4, 5 and 7 for solar viewing. Again, Mother Nature turned her back on us and the students, at least on the first day. The students trudged to WSO through deep puddles, soaked to the skin (middle school students don't like slickers, it seems), and bored and restless. Instead of getting a look at some (hopefully) cool stuff, they got 45 minutes of "death by PowerPoint." Without going into more gory detail, I think we have to re-evaluate what we do with classes on such miserable days, and I will mention that at tonight's club business meeting. The Tuesday and Thursday weather cleared up, thankfully, and so the students at least got to look through an eyepiece! The Sun didn't cooperate much, however - no sunspots, no prominences....nothing! But at least it was shining, making spirits a bit brighter!

A third event of interest to CCAS members was Dr. Larry Marschall, a friend and frequent guest speaker at CCAS, giving an updated version of his CCAS talk "Tiny Bit of Shakin' Going On: Gravitational Waves and the Universe" at WHOI on Wednesday, May 2nd and at the Wellfleet Public Library on May 21st at 700 PM. CCAS members were notified of both lectures, which received rave reviews.

Finally, we are looking for a slate of CCAS officer candidates for the July election. Please contact George Silvis (george@gasilvis.net) to submit your name if you are interested. We need an active, full roster of officers in the coming year! (President, Vice-President, Secretary and Treasurer.)

June 7th CCAS Seminar

Dr. Ken Brink, CCAS and WHOI

Tides and Tidal Forces

Tides are the most predictable of all ocean phenomena because they are forced by the sun's and moon's gravitational attraction. These heavenly bodies both have well-known periodicities that, in turn, lead to tidal regularity. A combination of centrifugal and gravitational forces acts on the ocean, atmosphere and even Earth's crust to drive tidal motions having periodicities that reflect combinations of regular periods, such as Earth's daily rotation combined with the moon's rotation around Earth. Ocean tides are complicated by the complex geometry of the ocean basins, so that there are "quiet" areas, along with resonant "hot spots" such as the Gulf of Maine/Bay of Fundy system. Tidal currents dissipate, leading to extraction of energy from the rotational motion of the moon around Earth, for example. Ultimately, this type of drag changes the length of the day and of the lunar month. The heat created by extreme tidal dissipation is what keeps the moon Europa's ocean partly liquid as it orbits Jupiter. Even more extreme tidal forces can be found as objects revolve around black holes, leading to the destruction of the orbiting bodies.

Upcoming Speakers and Topics

July - Dr. Jim Lynch, CCAS. Spectroscopy - Observational Basics, With a Live Demonstration.

August - Dr. Anastasia Fialkov and Dr. Marion Dierickx, HSCfA. Titles TBA.

September - Could use a volunteer!

October - Dr. Tony Stark, HSCfA. Cosmology topic.

November - Dr. Martina Arndt, Bridgewater State. Solar Eclipses.

December (tentative) - Dr. Jim Lynch, CCAS. Dark Matter - what the heck is it?

May Meeting Minutes and CCAS Business

Will be in coming addendum to this issue.

Star Parties

From July through August, we will have a regularly scheduled Star Party each month taking place on a day near to the new moon at 8:30-10:30pm.

When the moon is near its First Quarter, the terminator (the line dividing light from dark) is favorable for viewing sunlight or shadow on the sides of craters. This time is also favorable for observing the dark side of the moon occult (visually cover) stars in the sky as the moon moves in its orbit. Depending upon the calendar, we may also be able to observe planets and other celestial objects.

Here is the schedule for “Star Parties” through June, 2018; **the public is invited:**

Saturday, June 16th

POSSIBLE CANCELLATIONS for Star Parties: Cancellations will be very rare since we have lots to do "inside" as well as outside. Even if the forecast is "iffy"; the Staff Leader for the night may elect not to cancel in spite of possible clouds. If clouds arrive after staff and guests have convened, a virtual Star Party will usually take place indoors to include overviews of the sky for that night using computer simulations with our big screen TV, videos of interesting sky events recorded previously, demonstrations and/or training on the use of scopes and other equipment, and consultation/discussions on things astronomical, etc.

However, sometimes a solid forecast for overcast or rain or a storm will result in cancellation of a given Star Party. **IF IN DOUBT ABOUT THE WEATHER AND THE STATUS OF A STAR PARTY, CALL THE OBSERVATORY AT 508-398-4765 AFTER 7:45 pm.** No answer means the event has been cancelled.

Directions to Dennis Yarmouth HS and 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 in the south entrance road and go around behind the main building. Park in the lot about half way 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.

H&K directions

Please be reminded that Gus Romano or his delegate “host” a dutch-treat dinner gathering for members and friends each CCAS meeting night (before the meeting) at the South Yarmouth Hearth & Kettle restaurant at 5:45pm; (the meetings begin at 7:30 at D-Y.) The speaker for each meeting is always invited. Please join the group to dine and talk about all things interesting, including astronomy, each month 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).