



First Light

The Newsletter of the Cape Cod Astronomical Society



August, 2014

Vol. 25 No. 8

Consider this alternative to the Big Bang Theory...



This little pearl of wisdom appeared in the Comics section of the Cape Cod Times for Sunday, July 27, 2014.⁷

This goes to show that one need look further than just Astronomy or Sky & Telescope magazines to really understand all there is to know about origins of the cosmos.

Next Monthly Meeting: is Thursday, August 7th, at 7:30pm: We will have a special tour of and introduction to the Harwich Observatory at [Harwich Elementary School](#) conducted by Director and CCAS member, Larry Brookhart and member Gus Romano.

**REMINDER: NO MEETING AT D-Y; MEETING IS AT THE HARWICH OBSERVATORY (SEE Map page X).
REMINDER: NO STAR PARTY AT SCHMIDT on August 7th. WE MAY DO SOME OBSERVING IN HARWICH.**

In this issue: August meeting in Harwich / 3 new members / CCAS Elections / Dues / Astrophoto / Jupiter Meets Venus... in public, no less / Grazing Meteors / Big Moon – Very High Tides / Directions to Harwich Observatory / Starlab Planetarium /

Directions to Harwich Observatory

Harwich Elementary School, South Street, Harwich Center

Our August 7th Meeting will be held at the Harwich Observatory. The point end of the arrow marked “Harwich Observatory” in Mike Hunter’s map is pointing to a garage door in a flat part of the school building. That “garage” contains the observatory room and equipment storage. Weather permitting, equipment, especially the 32” Dob and its ladder will be brought out on the tarmac outside the garage where we will meet.

You get to Observatory as follows: From Harwich Center (intersection of Rt 39 and Rt 28 (Main Street) at the top of the photo (about under the “7” of “7:30”,) drive a bit west and turn left on South Street (about under the “S” of “CCAS” on the map.) As you go south on South Street, pass Parallel Street on the left and begin to see the school building on the left. Drive past the first entrance way to the school on your left, and enter the more southerly entrance way (a bit left of the “Park Here” arrow on the map). Park where you can find a spot and walk around the south and then east side of the school building to the Observatory “garage.”

Problems? Try contacting Larry Brookhart, Director of the Observatory at either 508-432-8787 or 508-430-7216.

STARLAB Portable Planetarium Comes to the Cape Cod Museum of Natural History

Terry Izzo, Program Coordinator for the Cape Cod Museum of Natural History in Brewster, sent us this notice inviting all who haven’t seen it yet to visit the *Starlab Portable Planetarium* at the MNH on August 12. The portable planetarium (which I think some of us saw at CCMNH several years ago) will be used to present a show called ***Light The Night*** by the Museum of Science, Boston.

There will be four showings on Tuesday, August 12: 4:00, 4:45, 5:30 and 6:15pm.

Starlab will take you on a tour of the solar system and beyond, and help you discover which stars, planets, and other astronomical wonders are visible this evening including the wonder of the Perseid meteor shower! In addition, *Starlab* educators will provide useful tips on how you can navigate the night sky from your own backyard! Appropriate for all ages.

Reservations are required; space very limited; call 508-896-3867, x133. Tickets: Museum admission and show combo: Adults \$18, Seniors \$16, Children \$13; Show only: Members \$8; Non-members \$10.

The Museum is open 9:30am until 7pm on August 12.

Cape Cod Astronomical Society

| | | |
|---------------------------|------------------|--------------|
| President | Position is Open | |
| Vice President | Charles Burke | 508-394-9128 |
| Secretary | Gus Romano | 781-924-4770 |
| Treasurer | Peter Kurtz | 508-255-0415 |
| Observatory Director | Joel Burnett | 508-221-7380 |
| <i>First Light</i> Editor | Peter Kurtz | 508-255-0415 |

Mailing Address: A. P. Kurtz, CCAS Treasurer, 34 Ridgewood Rd,
Orleans MA 02653

Cape Cod Astronomical Foundation

| | | |
|------------------------|----------------|--------------|
| Chairman | Werner Schmidt | 508-362-9301 |
| Vice Chairman | Michael Hunter | 508-385-9846 |
| Director of R&D | Bernie Young | 508-394-1960 |
| Secretary | Ed Swiniarski | 508-896-5973 |
| Treasurer | Pio Petrocchi | 508-362-1213 |
| Observatory Director | Joel Burnett | 508-221-7380 |
| Observatory Phone Line | | 508-398-4765 |

The **Cape Cod Astronomical Society** meets at 7:30 pm on the first Thursday of every month in the library of the Dennis-Yarmouth Regional High School in Yarmouth, Massachusetts. Meetings are open to the public. Membership dues are \$30 for adults, \$15 for students in two year colleges and part year residents, and no charge for spouses or for students in K-12 schools.

REFERENCES AND NOTES FOR THIS ISSUE:

- 1) Information for The Mooncussers Almanac and Monthly Observing Alerts was extracted from Sky Events, Astronomy Magazine Online (Astronomy.com), Stargazing.net's Planet Rise/Transit/Set calculator (<http://www.stargazing.net/mas/planet2.htm>), *Astronomy Magazine*, *Sky & Telescope Magazine*, *Sky and Telescope Skywatch 2011*, and other sources. The *Observer's Handbook, 2010 and 2011*, published by The Royal Astronomical Society of Canada is also an important reference, particularly for information on lunar libration and declination and the minima of Algol.
- 2) Information on how Libration and Declination Maxima and Minima can make visible parts of the moon normally hidden was reviewed in the January2007-January2008 *First Light*. Quick recap: Max Long brings to view extra right side; Min Long, extra left side; Max Lat, extra north side; Min Lat, extra south side. Max Dec puts it high in our sky during its transit; Min Dec puts it low.
- 3) Algol is an eclipsing variable star in Perseus which has its brighter component eclipsed or covered by its companion once every 2.87 earth days. When the dimmer component is not eclipsing the brighter, Algol appears typically about magnitude 2.1; when eclipsed, magnitude 3.3 The minima usually lasts about two hours with two hours on either side to bring it back to mag 2.1. Good comparison stars are γ -Andromedae to Algol's west, mag 2.1, and ϵ -Persei to its east, mag 2.9.
- 5) Here is the web address for Astronomy Magazine's "The Sky This Month" online for August: <http://www.astronomy.com/magazine/sky-this-month/2014/06/venus-meets-jupiter>
See also S&T resources online at <http://www.skyandtelescope.com/>
- 6) S&T's interactive Java utility for showing the positions of Jupiter's main moons for any date and time: <http://www.skyandtelescope.com/observing/objects/planets/3307071.html> :
for Saturn's moons: <http://www.skyandtelescope.com/observing/objects/planets/3308506.html>
- 7) Cape Cod Times Comics Section, Sunday, July 27, 2014; Credits: Go to the "Close to Home" website at www.closehome.com to learn more about the creator of this gem, John McPherson and related information.