



First Light

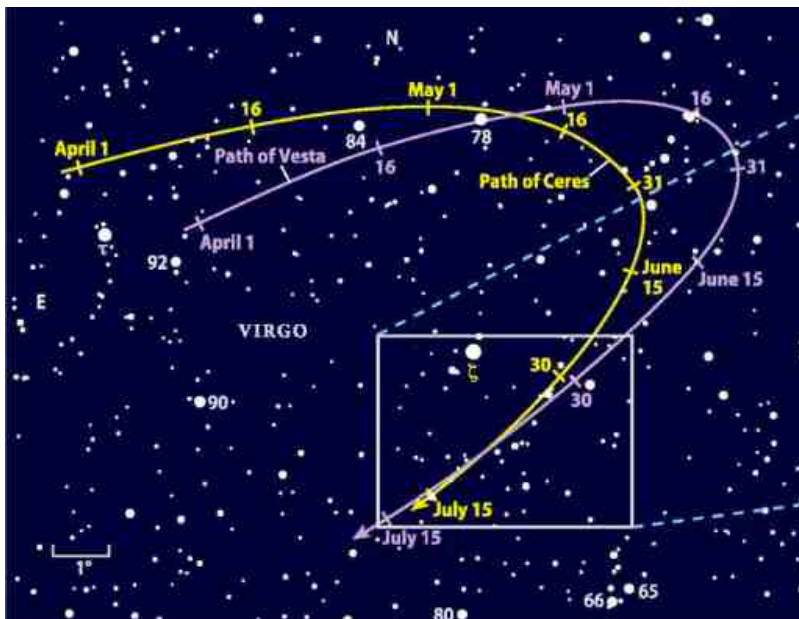
The Newsletter of the Cape Cod Astronomical Society



May, 2014

Vol. 25 No. 5

**Vesta and Ceres approach to within 0.2° for us in July!
Start Watching Now!! 9:30pm each night in Virgo.**



Ceres and Vesta pass within 0.17° of each other on July 6.

[Story and charts from May's *Astronomy*, p 52.]

April 1 – July 15 chart shows stars from ξ -Virginis, mag 3, (near center) to dimmest dots, mag 9. Vesta (mag 6.3) and Ceres (mag 7.5) should be easy to spot with binoculars, maybe even without optical aid.

Vesta (468km dia.) and Ceres (848km dia.) are moving slowly in Virgo, April 1 thru end July. Virgo is relatively sparse in bright stars and situated conveniently about 50° altitude in the 9pm southern evening sky for much of this period. This is a great opportunity to track two asteroids as they come close together. We will simulate this three-month event in a demonstration of the app Sky Safari at our May meeting.

Next Monthly Meeting: is Thursday, May 1st, at 7:30pm: CCAS members Peter Kurtz and Mike Hunter will demonstrate the broad sky simulation capabilities of phone/computer app *Sky Safari* including its use in helping to acquire and evaluate astrophotographs. Public welcome. Please join us.

Reminder: The next once-a-month “Quarter-Moon-Saturday” Star Party takes place on May 3rd at 8:30pm; note new time.

In this issue: Big dance of Ceres and Vesta Begins / Four New Members / Loss of Marsha Schmidt / Summer Star Party Schedule Set / New Meteor Shower / Mercury at High from Horizon / Comet Panstarrs / We Hold *GREAT* Star Parties!

Bright New Stars:

We are pleased to welcome four people to membership in CCAS this month.

April and Alex Houser of South Chatham joined CCAS after several special experiences at the Harwich Elementary School Observatory. April made these observations in her application for membership: "We have been enjoying, and will continue to enjoy, the Harwich Star Parties with Mr. Brookhart and Mr. Romano. Actually Mr. Romano is the one that asked if we were interested in joining the CCAS since Alex (April's son) and I try to make every Star Party. This will give Alex even more access to information as his thirst for knowledge expands and that is what is most important. Not to say that I do not have a healthy interest as well. Alex has his own telescope and would enjoy [working with CCAS folks] on set up and use." Welcome aboard, April and Alex! Thanks to Larry B. and Gus R. for such excellent outreach!

Paul G. Schervish and his wife, Terry Chipman, of Belmont MA and Wellfleet joined CCAS during April. Terry applied for membership as a birthday present for her husband. While Paul and Terry will be busy over the next few months welcoming a new grandchild in North Carolina, we look forward to meeting them soon at Society meetings and Star Parties whenever they can get to their Cape home. Welcome to CCAS, Paul and Terry!

We are sorry to announce the loss of a notable member of CCAS. Marsha Schmidt, daughter of our long-time leader Werner Schmidt, passed away on Monday, April 14th, in New York City. Our deepest condolences to Werner and his family.

We like to profile new members in our Society in this section of *First Light* each month. If you are a new member and have not yet been so recognized, or might have new information for us (background, astro equipment preferred, interests, etc.) on yourself or someone else, please let us know (email info@ccas.ws).

PLEASE CONSIDER SUBMITTING AN ITEM OR ARTICLE FOR PUBLICATION IN *FIRST LIGHT*.

CCAS News Items and Current Events:

CCAS Meetings:

Many thanks to Larry Brookhart and Gus Romano for their informative presentation, "**Harwich Observatory**" at our April 4th meeting. Larry has been developing an observatory at the Harwich elementary school (now part of the Monomoy Regional School District) for several

years. This presentation brought us up to date on the excellent program and capabilities they have at this sister site. As pointed out in the column to the left, one visitor and her son so enjoyed evenings at Harwich that they have become new members of CCAS!

At our May 1 meeting, Peter Kurtz will present "**Highlight Capabilities of the (\$2.99!) Sky Simulation Program and Telescope Control Program ,Sky Safari**"; Mike Hunter will discuss a special aspect of using this powerful app: "**The Use of Sky Safari Pro and SkyFi in the Acquisition and Evaluation of Astrophotographs**". As always, public welcome.

Thanks to Mike Hunter, our Program Chair, for lining up these special topics and speakers; we also thank the Observatory Staff, Mike, Larry and Gus for agreeing to present.

Members, **PLEASE** participate in the effort to recruit good speakers to present programs in astronomy and related sciences at our meetings. Please send any ideas or contact information to Mike or to info@ccas.ws . For sure he will follow up.

We are looking for speakers for August and later meetings in 2014. Please let us know if you have any leads...

or, even better, volunteer to give a talk yourself!

Reminder: If you have not yet paid your dues for the July 2013 – June 2014 cycle, please do so. You may bring your check to the May meeting or mail to CCAS, 34 Ridgewood Rd. Orleans MA 02653. Thank you.

Minutes:

The minutes of our March meeting are on our website; click on the "Minutes" button at www.ccas.ws or go to <http://www.ccas.ws/minutes/ccasminutes040314.pdf>

From the Dome:

The next "Quarter Moon Saturday" Star Party will take place on May 3rd at 8:30pm. Please note the later starting time. The last QMS event this season will be June 7th at 8:30pm.

The summer schedule of weekly Thursday Star Parties at The Schmidt begin Thursday, June 26, at 8:30pm and will continue thru end August.

As always, “Private” group or individual observing sessions at the Werner Schmidt Observatory may be scheduled by contacting Observatory Director Joel Burnett at Joelburnett@comcast.net or sending an email to info@ccas.ws

Our Society exists to promote observing! Help us promote this objective by asking for time at the Dome! CCAS has both 8” and 14” Dobsonian telescopes for loan to members. If you wish to borrow one of these ‘scopes, contact info@ccas.ws

May Observing:

Mooncusser’s Almanac and Monthly Alert ¹ MAY 2014			
Object	MAY 1 (EDT)	MAY 15 (EDT)	MAY 31 (EDT)
Sun	R: 05:37 S: 19:38	05:20 19:53	05:09 20:07
Moon	R: 07:27 S: 21:49	20:26 06:16	07:50 22:08
Mercury (evening)	R: 05:53 S: 20:12	06:16 21:39	06:30 21:50
Venus (dawn)	R: 04:02 S: 15:55	03:45 16:21	03:28 16:52
Mars (evening)	R: 16:54 S: 04:39	15:49 03:36	14:50 02:32
Jupiter (evening)	R: 09:36 S: 00:40	08:52 23:54	08:03 23:02
Saturn (all night)	R: 20:12 S: 06:25	19:11 05:26	18:02 04:20
Uranus (predawn)	R: 04:34 S: 17:17	03:41 16:25	02:39 15:25
Neptune (predawn)	R: 03:10 S: 14:08	02:15 13:14	01:13 12:12
Pluto (late nite)	R: 00:12 S: 09:48	23:16 08:52	22:12 07:48

Please see resources in May’s *Astronomy Magazine*, pp 36-43 and *Sky and Telescope*, pp 43-58, and Reference 5 for good guides to the May sky. See p 41 in *Astronomy*, and p 52 in *Sky and Telescope*, and also reference 6 for positions of the moons of Jupiter for May; timings for special phenomena of the moons of Jupiter (shadow transits, occultations, etc.) and timings for “the great Red Spot” of Jupiter can also be found on pp 51-52 in the *S&T*.

As the weather warms, there are several events coming up in the night sky that deserve particular attention:

- Start tracking our big asteroids **Vesta and Ceres** in Virgo now and watch them converge in July at only 0.17° apart as viewed from earth; please see story and finder charts on our front page; also see story in the May issue of *Astronomy*, beginning page 52.
- A new and very possibly spectacular meteor shower should take place this May; some folks think it could be a “meteor storm”. Centered on about 3am EDT, May24, the earth will be passing through debris left by a relatively new periodic comet, Comet 2009P/Linear. This passage is expected to produce a **significant “new” meteor shower with rates of 100 to (one pundit) 400 meteors/hour**. See the story in May’s *S&T*, p.30. Worth taking a look!
- **Mercury** offers one of its best evening showings of 2014 this month: it is visible as far as 19° above the horizon at sunset for much of the month; on May 25 (look for stray meteors from the May 24 event!) Mercury sets a full two hours after the sun.
- Expected to glow at mag 7 or 8, **Comet Panstarrs (C/2012 K1)** travels to the northwest roughly parallel to the handle of the Big Dipper during May. See finder chart in May’s *S&T*, p 50.
- With **Saturn** rising at 8:12pm on May 1, we begin the season in which the ringed planet and its spectacular moons gradually take center stage away from **Jupiter** (sets at 11pm for us by month’s end.) Saturn shines from dusk until dawn when it reaches opposition the night of May 10-11.
- **Mars** continues to offer excellent views during May. Although beginning to move slowly away from its closest position of opposition during April, it is observable all night most of the month.

Minima of Algol^{1,3}, May:

Algol, a variable double star in Perseus, shines normally at mag 2.1 but once every 2.87 days dims to mag 3.4. The dimming is caused by the dimmer of two self-orbiting stars eclipsing the brighter as viewed from earth.

There are two evening occurrences of the Minima of Algol at Cape Cod during May: Wednesday, May 14, R 10:22pm and Saturday, May 17, at 7:11pm.

Using binoculars or a small telescope, try to begin viewing two to three hours before the minima to watch the dimming and up to two to three hours after the minima to watch the brightening.

Declination Tables for the Moon² during this month
please contact your editor for information or sources.

Moon Phases, May, 2014

First QTR Tuesday, May 6th at 11:15pm

Full Moon Wednesday, May 14th at 3:16pm

Last QTR Wednesday, May 21st at 8:59am EDT

New Moon Wednesday, May 28th at 2:49pm EDT

Do We Hold Great Star Parties, or What?

Kudos to Joel Burnett and the Schmidt Observatory Staff for continuing excellence in outreach at our Star Parties!

We report here a good episode which began with an inquiry to <mailto:info@ccas.ws> about when and where for our Star Parties. [ed.: We need to get that information at a new "button" on our new main website home page.]

On March 30th, Sue Malomo wrote: "I recently learned about your organization from Mike Marks [Thank you, Mike!] and would love to attend the Star Party on April 5th with my 3 sons."

We sent her the information, and she and her family participated.

Thank you, Sue, for these happy remarks you sent us in a follow-up email:

"Thank you so much for the info! We went to the star party that Saturday night and could not have asked for a more perfect night - sky was perfectly clear [ed: Imagine that!] and the people were unbelievably welcoming and helpful. Joel, Gail, and Bernie went out of their way to make this a wonderful experience for us. Please extend my sincere thanks to them for taking the time to not only share their knowledge of the night sky, but truly make us feel welcome and share their enthusiasm with my three boys.

"When I was sharing my experience with some other members of our Cub Scout pack, there was some interest in a group outing this summer. I believe Gail was saying that the group meets on Thursday nights during the summer? If so, would it be possible for a group to attend one night? Some of the boys are working on STEM achievements and astronomy covers some of the requirements.

Thank you so much, I'm so excited to have discovered such a wonderful resource on the Cape!"

[Joel Burnett is in contact with Sue about possibilities for this summer.]

**A PORTION OF THIS PAGE IS INTENTIONALLY LEFT
BLANK TO REMIND ALL MEMBERS THAT THERE IS
ALWAYS PLENTY OF ROOM IN *FIRST LIGHT* FOR
YOUR CONTRIBUTIONS**

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Treasurer	Peter Kurtz	508-255-0415
Observatory Director	Joel Burnett	508-221-7380
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Cape Cod Astronomical Foundation

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Secretary	Ed Swiniarski	508-896-5973
Treasurer	Pio Petrocchi	508-362-1213
Observatory Director	Joel Burnett	508-221-7380
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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 May:

<http://www.astronomy.com/magazine/sky-this-month/2014/03/saturns-majestic-opposition>

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>
