



Monthly Notices of the Everglades Astronomical Society



Naples, FL
April 2020

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President's Message

I hope this letter finds you all in good health. Making the decision to cancel our meetings and events through June was difficult, but necessary.

As we all have a lot of time at home, I was thinking. (Scary, isn't it.) This would be a really good time for you to consider putting together a program for next year's schedule. Vic and Mike have already agreed to present the programs they had prepared for this year in the 2020/2021 year.

As for the Messier Marathon, although not perfect, I thought we could try again in September around the Autumnal Equinox. If anyone has any thoughts on this, please let me know.

In the meantime, if any of you would like to share any photos or observing reports from your backyards, please send them along to me. I will send them out in an e-mail blast. Although we are all stuck at home, I'm hoping that we can continue to share our love for astronomy with each other.

Hope to see everyone sooner than later.

Denise

Dates for Observing

Usually the best times to observe are moonless nights. Below is a list of upcoming Saturday nights that you may wish to enjoy the night sky from home until things get back to normal.

Date	Moonrise	Moonset
April 11	Midnight	10:00 a.m.
April 18	4:49 a.m.	4:19 p.m.

Sky Events

Apr. 1 - First Quarter
Apr. 7 - Full Moon
Apr. 14 - Last Quarter

Apr. 22/23 - Lyrid Meteor Shower
Apr. 22 - New Moon

Next Meeting - CANCELLED

Comet ATLAS (C/2019 Y4)

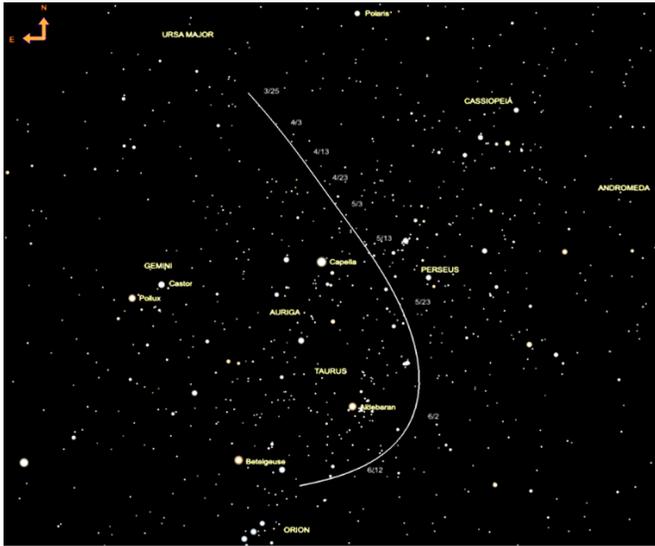
By Jackie Richards

As most of you already know, we have a new comet coming our way. Comet ATLAS was discovered on 12/29/19 by the Asteroid Terrestrial-Impact Last Alert System (ATLAS), an automated sky survey looking for possible near-Earth asteroids. In mid-March the comet grew 4 magnitudes to 8th mag. It is



Photo by Eric Uthus of Comet ATLAS 3/25-26/2020. Eric writes: "This was my first attempt to take a picture of a comet while tracking the comet, not the stars (PhD2 comet tracking). It actually worked quite well. I was able to remove the stars from the comet images in Pixinsight, but I had no success in removing the comet from the star field so I went back 2 days later and shot the star field. I'm not too satisfied with the picture as I am having a lot of trouble with denoising."

being predicted that this will be the comet of the year with the possibility of being naked-eye. Let's keep our fingers crossed. Below is an ephemeris showing the path of Comet ATLAS during April and May (perihelion – its closest approach to the sun - is May 31). I have also included a separate attachment to the email with a larger version of this ephemeris. Due to the comet's northern path, it seems like our viewing from Naples (26 degrees latitude) will be best during April's new moon.



Flame Nebula, Horsehead Nebula and Orion Nebula by Chuck Pavlick.



Omega Centauri by Vic Farris taken at Big Cypress 3/20/20.

**FABULOUS PHOTOS
BY EAS MEMBERS**



CG4 by Ted Wolfe remotely through his set up in the Atacama Desert in Chile. (7-hour exposure)



Conjunction of Venus and the Pleiades by Henri Troch 4/3/20.



Hubble at 30: Three Decades of Cosmic Discovery

David Prosper

The **Hubble Space Telescope** celebrates its 30th birthday in orbit around Earth this month! It's hard to believe how much this telescope has changed the face of astronomy in just three decades. It had a rough start -- an 8-foot mirror just slightly out of focus in the most famous case of spherical aberration of all time. But subsequent repairs and upgrades by space shuttle astronauts made Hubble a symbol of the ingenuity of human spaceflight and one of the most important scientific instruments ever created. Beginning as a twinkle in the eye of the late Nancy Grace Roman, the Hubble Space Telescope's work over the past thirty years changed the way we view the universe, and more is yet to come!

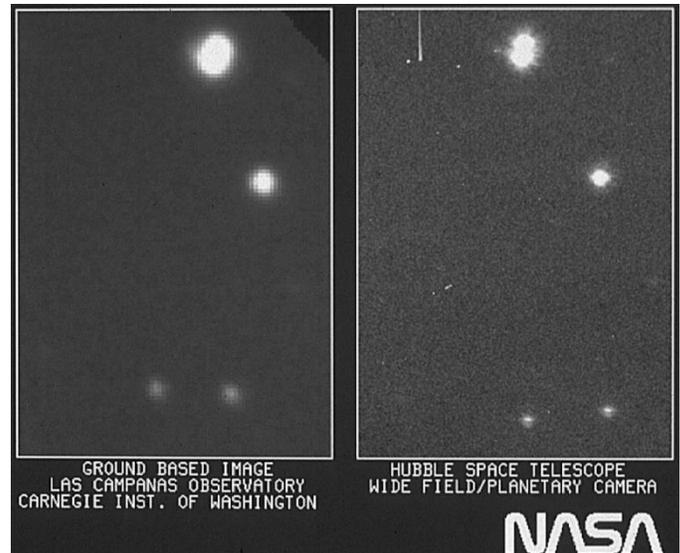
We've all seen the amazing images created by Hubble and its team of scientists, but have you seen Hubble yourself? You actually can! Hubble's orbit -- around 330 miles overhead -- is close enough to Earth that you can see it at night. The best times are within an hour after sunset or before sunrise, when its solar panels are angled best to reflect the light of the Sun back down to Earth. You can't see the structure of the telescope, but you can identify it as a bright star-like point, moving silently across the night sky. It's not as bright as the Space Station, which is much larger and whose orbit is closer to Earth (about 220 miles), but it's still very noticeable as a single steady dot of light, speeding across the sky. Hubble's orbit brings it directly overhead for observers located near tropical latitudes; observers further north and south can see it closer to the horizon. You can find sighting opportunities using satellite tracking apps for your smartphone or tablet, and dedicated satellite tracking websites. These resources can also help you identify other satellites that you may see passing overhead during your stargazing sessions.

NASA has a dedicated site for Hubble's 30th's anniversary at bit.ly/NASAHubble30. The Night Sky Network's "Why Do We Put Telescopes in Space?" activity can help you and your audiences discover why we launch telescopes into orbit, high above the interference of Earth's atmosphere, at bit.ly/TelescopesInSpace. Amateur astronomers may especially enjoy Hubble's images of the beautiful objects found in both the Caldwell and Messier catalogs, at bit.ly/HubbleCaldwell and bit.ly/HubbleMessier. As we celebrate Hubble's legacy, we look forward to the future, as there is another telescope ramping up that promises to further revolutionize our understanding of the early universe: the James Webb Space Telescope!

Discover more about the history and future of Hubble and space telescopes at nasa.gov.



Image Credit: NASA



Hubble's "first light" image. Even with the not-yet-corrected imperfections in its mirror, its images were generally sharper compared to photos taken by ground-based telescopes at the time. Image Credit: NASA

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more!

EAS 2020 DUES

For the bargain price of only \$20.00 per family, all this can be yours this year:

- Meet with your fellow astronomy enthusiasts at least 10 times a year;
- Learn about astronomy and telescopes. Check out our club scope;
- Many opportunities to view planets, nebulae and other celestial objects (even if you don't have your own telescope); and
- Enjoy the many astronomy programs at our regular monthly meetings.

Don't miss out! Fill out this form (please print clearly) and send it with your \$20 check to the Everglades Astronomical Society, P. O. Box 1451, Marco Island, Florida, 34146.

Name: _____

Address: _____

Phone: _____

Email: _____