



Monthly Notices of the Everglades Astronomical Society



Naples, FL
July 2019

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President's Message

With all the talk about putting a person on Mars, Dennis' talk was very much on topic. He gave us a great overview of what planets may have had life or if a planet could sustain life. He answered some questions that I have had about the possibility of moving out there.

Our July meeting will be our 'coffee klatch' at Mike's house. I personally love our July and August meetings because it gives me a chance to talk to everyone without worrying about the logistics of chairing a meeting.

The Collier County Library Summer Reading Program has gone very well. Several presentations have been made. To all the members who have volunteered, thank you. I have gotten a lot of positive feedback from the libraries. Things have gone so well, we are considering working with the libraries for next year. For me, the best part is how many young people we have reached. Perhaps one or two of those young people will be part of the first crew on Mars.

Denise

Dates for Observing

Usually the best times to observe are moonless nights. Below is a list of upcoming Saturday nights that you will likely find fellow club members out there enjoying the skies with you (weather permitting). We will let you know the new location.

| Date | Moonrise | Moonset |
|----------|-----------|------------|
| July 27 | 2:31 a.m. | 4:08 p.m. |
| August 3 | 9:33 a.m. | 10:34 p.m. |

Sky Events

- July 2 - New Moon
- July 9 - First Quarter
- July 11 - Jupiter Transit (Io)
- July 16 - Full Moon
- July 16 - Jupiter Transit (Europa)
- July 20 - Jupiter Transit (Io)
- July 22 - Jupiter Transit (Callisto)
- July 24 - Last Quarter
- July 27 - Jupiter Transit (Io)

Next Meeting

July 9, 2019: Time 7:00 – 9:00 pm
Mike Usher's House, Naples

PHOTOS BY EAS MEMBERS

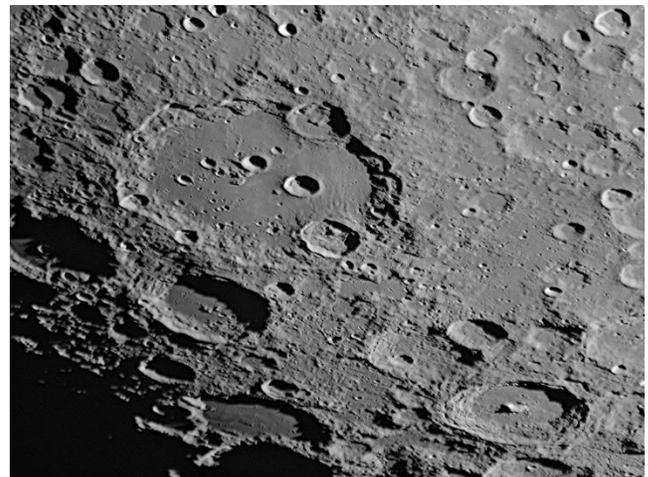
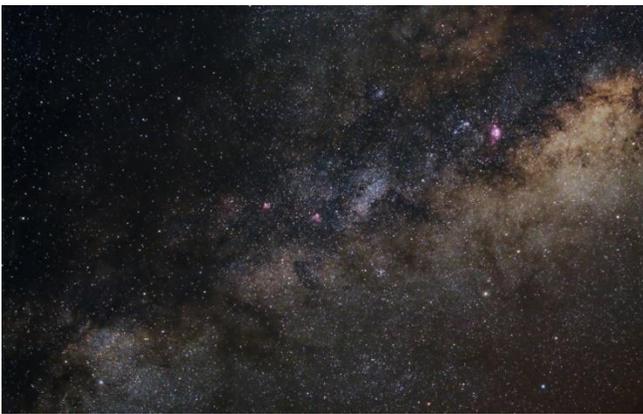


Photo of the moon by Chuck Pavlick on 6/13/19.



Photo of Jupiter – transit of Europa by Chuck Pavlick on 6/22/19.



The Milky Way by Chuck Pavlick in New Mexico 5.7.19

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NASA Night Sky Notes

Observe the Moon and Beyond: Apollo 11 at 50 By David Prosper

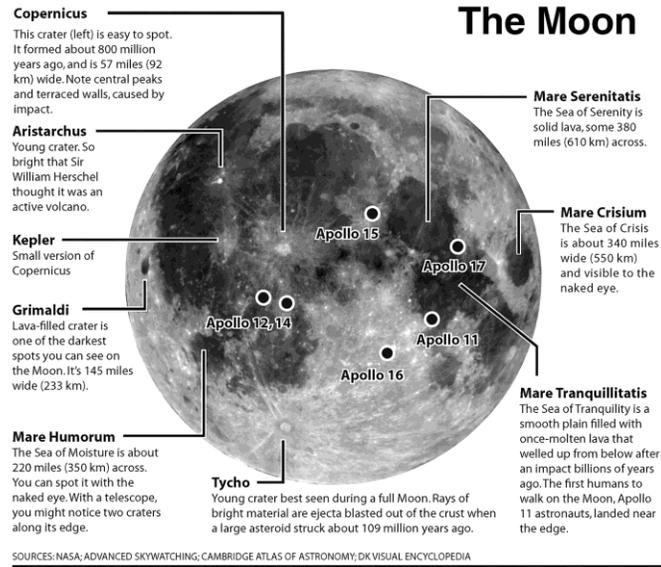
Saturn is at opposition this month, beckoning to future explorers with its beautiful rings and varied, mysterious moons. The **Moon** prominently passes Saturn mid-month, just in time for the 50th anniversary of **Apollo 11**!

Saturn is in opposition on July 9, rising in the east as the Sun sets in the west. It is visible all night, hovering right above the teapot of Sagittarius. Saturn is not nearly as bright as Jupiter, next door in Scorpius, but both giant planets are easily the brightest objects in their constellations, making them easy to identify. A full **Moon** scrapes by the ringed planet late in the evening of the 15th through the early morning of the 16th. Some observers in South America will even see the Moon occult, or pass in front of, Saturn. Observe how fast the Moon moves in relation to Saturn throughout the night by recording their positions every half hour or so via sketches or photos.

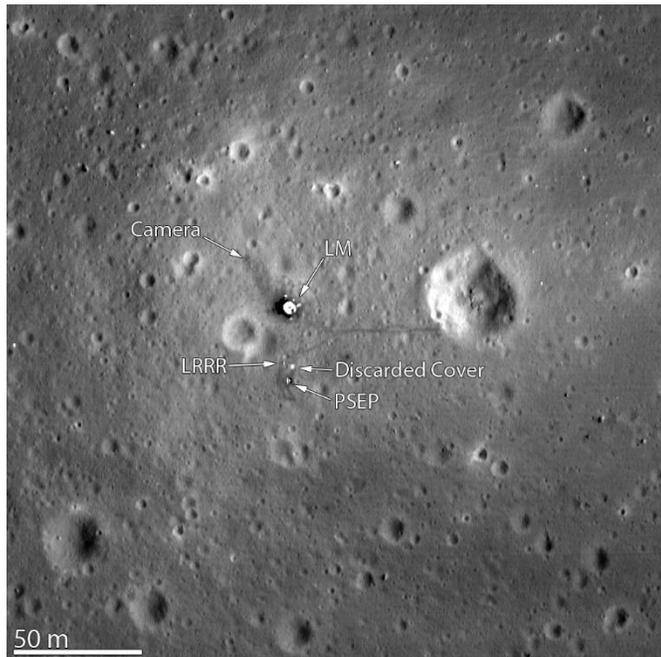
While observing the Saturn-Moon celestial dance the early morning of the 16th, you can also contemplate the 50th anniversary of the launch of the **Apollo 11** mission! On June 16, 1969, Apollo 11 blasted off from Cape Canaveral in Florida on a journey of almost a quarter million miles to our nearest celestial neighbor, a mission made possible by the tremendous power of the Saturn V rocket – still the most powerful rocket ever launched. Just a few days later, on July 20, 1969 at 10:56 pm EDT, Neil Armstrong and Buzz Aldrin set foot on the lunar surface and became the first people in history to walk on another world. The astronauts set up equipment including a solar wind sampler, laser ranging retroreflector, and seismometer, and gathered up almost 22 kilograms (48 pounds) of precious lunar rocks and soil samples. After spending less than a day on the Moon’s surface, the duo blasted off and returned to the orbiting Columbia Command Module, piloted by Michael Collins. Just a few days later, on July 24, all three astronauts splashed down safely in the Pacific Ocean. You can

follow the timeline of the Apollo 11 mission in greater detail at bit.ly/TimelineApollo11 and dig deep into mission history and science on NASA's Apollo History Site: bit.ly/ApolloNASA.

Have you ever wanted to see the flag on the Moon left behind by the Apollo astronauts? While no telescope on Earth is powerful enough to see any items left behind the landing sites, you can discover how much you can observe with **the Flag on the Moon** handout: bit.ly/MoonFlag



Caption: Observe the larger details on the Moon with help from this map, which also pinpoints the Apollo landing site. Full handout available at bit.ly/MoonHandout



Caption: Earth-based telescopes can't see any equipment left behind at the Apollo 11 landing site, but the cameras onboard NASA's Lunar Reconnaissance Orbiter (LRO) can. This is Tranquility Base as seen from the LRO, just 24 kilometers (15 miles) above the Moon's surface, with helpful labels added by the imaging team. Image Credit: NASA Goddard/Arizona State University. See more landing sites at: bit.ly/ApolloLRO

You can catch up on all of NASA's current and future missions at nasa.gov

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!

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EAS 2019 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: _____