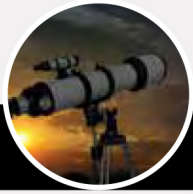


## Moonstruck Astronomy Club

**Gammie Fairburn**



What does a star win in a competition? A constellation prize!

At our May meeting, we had a special guest speaker, NASA Solar System Ambassador Mark Gillette. He is also an astrophotographer, pilot, and retired college professor. His presentation included the Artemis missions, the International Space Station (ISS), the Perseverance rover and Ingenuity helicopter, the James Webb Space Telescope (JWST), and the NASA Eyes app.

The Artemis program began in 2022 with the uncrewed Artemis I mission. We recently witnessed the Artemis II crew perform a flyby of the Moon. They did not orbit the Moon, but they went farther from it than the Apollo astronauts did. Artemis III is scheduled for late 2027. It will not land on the Moon, but the Orion spacecraft will rendezvous with and practice docking with moon landers. Maybe in 2028, Artemis IV will be the first crewed moon landing since Apollo 17 in 1972.

The ISS has been continuously occupied since 2000 and will be retired by 2030. Nearly 300 astronauts have been stationed at the ISS, and currently Expedition 74 is assigned to the station.

The Perseverance rover landed on Mars in 2021. It delivered the Ingenuity helicopter to see if powered aircraft could fly in the thin atmosphere of Mars, which has one percent of the density of

Earth's atmosphere. Ingenuity was the first successful powered aircraft to fly on another planet. It was successful because of its high rotor speed.

The Hubble telescope launched in 1995 and orbits the Earth at a distance of 350 miles. The James Webb telescope launched in 2021 and orbits the Earth and the Sun at a distance of one million miles. It is so much further away because it operates in the infrared spectrum and must be far from heat sources such as the Earth and the Sun.

NASA Eyes ([eyes.nasa.gov](https://eyes.nasa.gov)) is a visualization app that lets you view the Earth, the solar system, asteroids, and exoplanets in three dimensions. Functions include landing the Perseverance rover on Mars, tracking asteroids that may threaten Earth, and viewing the solar system from 1950-2050. Since every star has at least one planet, there are billions of planets in the universe. These planets that are outside our solar system are called exoplanets.

Besides the NASA Eyes app, other space apps include the Spot the Station app, which shows you the time and where in the sky to view the ISS as it passes over your location. Spaceflightnow.com provides the launch times and mission information of all space launches, including international launches.

The Moonstruck Astronomy Club meets on the second Thursday every month from 1:30 to 3 p.m. in the Hobby Building Event Room. Our next meeting is Thursday, July 9.

Keep looking up!