

WEEKLY STARGAZERS' NEWSLETTER

by Dr. Bob

Volume 8, Issue 30

These are the notes that I use for the weekly radio broadcast on Rome Radio Station WLAQ AM 1410 and FM 96.9. The program airs at 7:50 a.m. each Tuesday morning. The radio station also has a live FaceBook broadcast at the same time: WLAQ-Rome. Send questions to: ryoung@highlands.edu

OBSERVATION PERIOD:

08/06/24 – 08/12/24

FUN FACT OF THE WEEK

Neptune's winds are the fastest in the solar system, reaching speeds of up to 1,500 miles per hour (2,400 kilometers per hour) at high altitudes. This is 1.5 times faster than the speed of sound and three times stronger than Jupiter's winds, and nine times stronger than Earth's.

MOON FOR THE WEEK:

The Moon will be First Quarter on Monday, 08/12/24. The Moon will waxing during the week as it goes from New toward First Quarter on Monday, August 12th.



The Moon is at Apogee on Thursday, August 8th. This is when the Moon is at its greatest distance from the Earth as it orbits monthly, the distance is 405,297 miles from the Earth.

The Sun --

The Sun rises at 06:55 (6:55 a.m.) this week and sets at 20:38 (8:38 p.m.)

This means that the Sun is above the horizon for Sun is “up” for 13 hrs. and 40 minutes this week.

The Sun climbs to an altitude of 72.4 degrees which is lower than last week when it was 74.2 degrees above the horizon. The Sun is still in the constellation

Cancer, the Crab, this week as it seems to move due to the Earth orbiting the Sun.

The Earth is currently 1.014 AUs from the Sun and getting closer as the Earth heads toward Perigee on January 4th, 2025.

PLANETS

Mercury: This week Mercury rises in the East around 8:42 a.m. after the Sun but sets in the West after the Sun around 9:15 p.m. Since it is only 45 minutes after sunset, it will be more difficult to see this week.

Venus rises in the East at 8:18 a.m. and sets in the west at 9:29 p.m. This is about 50 minutes after the sun, so you might get a good view of it in the Western evening sky. When Venus is seen in the evening sky.. it is call the Evening Star.

Mars rises in the East at 2:16 a.m. which is more than 3.0 hours before the Sun so Mars is a wonderful object in the predawn sky. Look for its amber hue in the early predawn sky.

Jupiter rises in the East at 2:34 a.m. which is also about three hour before the Sun. Look low on the eastern horizon before sunrise to see this planet. It should be very bright in the sky. If you have a pair of binoculars, you should be able to see the four Galilean Moon.

Saturn rises in the East around 10:38 p.m. This means that you can see Saturn practically all night long until sunrise. Saturn is an easy target in the late night sky until the early morning.

MARS ROVER PERSEVERANCE

To get regular and current updates on the progress of NASA's Perseverance 5rover on Mars, go to the websitehis :

<https://www.space.com/news/live/mars-perseverance-rover-update>

SATELLITES FOR THE WEEK (ISS PASSES

Unfortunately, there aren't any good passes of the International Space Station this week.

STAR PATTERNS IN THE SKY

Perseid Meteor Shower

The next Perseid meteor shower peaks around the night of Aug. 11 and before dawn on Aug.12, 2024, with good viewing conditions for a few days on either side of the peak.

The Perseid meteor shower, commonly known as the Perseids, is visible annually from mid-July to late August.

This year, although the moon will be 50% illuminated during the peak of the Perseids, it will set around midnight, providing dark skies until dawn — ideal for meteor watching!

The Perseids result from Earth passing through debris — bits of ice and rock — left behind by Comet Swift-Tuttle, which last passed close to Earth in 1992.

The shower peaks around Aug. 11-12, when Earth travels through the densest and dustiest part of this debris. In years without moonlight, the meteor rate appears higher, and during outburst years (such as 2016), the rate can reach 150-200 meteors per hour.

SPACE HISTORY OF THE WEEK

August 8, 1978: Pioneer-Venus 2 Launched.

The Pioneer Venus project was part of the Pioneer program consisting of two spacecraft, the Pioneer Venus Orbiter and the Pioneer Venus Multiprobe, launched to Venus in 1978. The program was managed by NASA's Ames Research Center.

The Pioneer Venus Orbiter entered orbit around Venus on December 4, 1978, and performed observations to characterize the atmosphere and surface of Venus. It continued to transmit data until October 1992.

August 12, 1977, Space Shuttle Enterprise was given its first glide test. Yes, it was named after the StarTrek Enterprise. This particular version of the SpaceShuttle did not have a heat shield nor any engines. It was designed to see how it would glide in the Earth's atmosphere. Afterward there was discussion on retrofitting it for future flights but it was more expensive to retrofit it than it was to build another one.

It currently is at the Smithsonian in Washington, D.C.

Question of the Week:

Dr. Bob, I saw a string of lights crossing the sky the other evening just after dark and it kind of scared me. The string of lights (about 20 light equally spaced apart) were all moving at the same speed across the sky, about the same speed as you would see an airplane or satellite. What did I see, did I see an UFO?

That must have been a wonderful sight. To be honest, along with a number of folks in Rome, my wife and I saw it as well. As it happens there was a SpaceX Falcon 9 rocket launched with 22 second-generation Starlink V2 Mini internet satellites. These satellites form a string in the upper atmosphere and can be seen when the Sun hits them just right. What we saw in the sky was the string of 22 satellites reflecting the sunlight just right.

We did not see an UFO that evening.