WEEKLY STARGAZERS' NEWSLETTER

by Dr. Bob

Volume 8, Issue 34

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:
09/03/24 – 09/09/24

FUN FACT OF THE WEEK

MOON FOR THE WEEK:

The Moon will be First Quarter on Monday, September 11th. The Moon will be waxing from New to First Quarter, during the week. The Moon will set in the West shortly after the Sun. Each day, it will set later and later until by Monday, it will be along the meridian at Sunset. Notice that the Moon will appear 15 degrees further east each day that you view it and the right side of the sun will be illuminated.

Apogee	406,211 km	05 September 2024 10:55

On September 5th (Thursday), the Moon will reach Apogee, 406,211 kms from Earth. This is when the Moon is a far away from Earth as it gets in its monthly trip around the Earth.

The Sun --
The Sun rises at 07:11 hrs (7:11 a.m.) this week and sets at 20:12 hrs (8:12 p.m.)

This means that the Sun is above the horizon for Sun is "up" for 13 hrs. and 1 minute which is less that last week.

The Sun climbs to an altitude of 65.4 degrees 68.2 degrees this week which is 2.8 degrees lower that last week. The Sun is in the constellation Leo, the Lion. The Earth is currently 1.010 AUs from the Sun.

PLANETS

Mercury: This week Mercury rises in the East around 6:14 a.m. and sets at 19:19 (7:19 p.m.) Since the planet rises about an hour before the Sun, you might get a glimpse of it before sunrise.

Venus rises in the East at 8:46 a.m. and sets in the west at 21.13 (9:13 p.m. It rises about an hour and a half after sunrise and about an hour and a half after sunset. You should be able to see Venus in the early evening sky low on the western horizon. Venus is also in the constellation, Leo.

Mars rises in the East at 1:45 a.m. which is more than 3.0 hours before the Sun, making Mars is wonderful object in the predawn sky. Look for its amber hue in the early predawn sky. Mars is in the constellation Taurus.

Jupiter rises in the East at 1:21 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. Jupiter is in the constellation ,Taurus.

Saturn rises in the East around 8:48 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, although not quite as bright as Jupiter. Saturn is in the constellation Aquarius.

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

Neither of the passes will be high enough or bright enough for us to see ISS.

SPACE HISTORY OF THE WEEK
STAR PATTERNS IN THE SKY
Triangulum

Triangulum is a small constellation in the northern sky. Its name is Latin for "triangle", derived from its three brightest stars, which form a long and narrow triangle.

Known to the ancient Babylonians and Greeks, Triangulum was one of the 48 constellations listed by the 2nd century astronomer Ptolemy.
Iota Trianguli is a notable double star system, and there are three star systems with known planets located in Triangulum.

The constellation contains several galaxies, the brightest and nearest of which is the Triangulum Galaxy or Messier 33—a member of the Local Group.

The first quasar ever observed, 3C 48, also lies within Triangulum's boundaries

Quasars show a very high redshift, which is an effect of the metric expansion of space between the quasar and the Earth. When the observed redshift of quasars is interpreted in terms of Hubble's law, it is inferred that quasars are very distant objects. Quasars inhabit the very center of active, young galaxies, and are among the most luminous, powerful, and energetic objects known in the universe, emitting up to a thousand times the energy output of the Milky Way, which contains 200–400 billion stars. This radiation is emitted across the electromagnetic spectrum, almost uniformly, from X-rays to the far-infrared with a peak in the ultraviolet-optical bands, with some quasars also being strong sources of radio emission and of gamma-rays.

SPACE HISTORY OF THE WEEK

August 27, 1962: Mariner 2 was launched. It was the first spacecraft to successfully encounter another planet, passing as close as 34,773 kilometers (21,607 mi) to Venus on December 14, 1962.
The last transmission from Mariner 2 was received on January 3, 1963 at 07:00 UTC, making the total time from launch to termination of the Mariner 2 mission 129 days. Mariner 2 remains in heliocentric orbit.

August 27, 1984: Teacher in Space was announced.
TISP was announced by President Ronald Reagan on August 27, 1984. The teacher would fly as Payload Specialists and return to their classrooms after flight. More than 40,000 applications were mailed to interested teachers while 11,000 teachers sent completed applications to NASA. Each application included a potential lesson that would be taught from space while on the Space Shuttle. The applications were sorted and then sent to the various State Departments of Education, who were then responsible for narrowing down their state applicants to a final set of two each. These applicants were notified of their selections and were gathered together for further selection processes down to ten finalists. These were then trained for a time, and in 1985 NASA selected Christa McAuliffe to be the first teacher in space, with Barbara Morgan as her backup. McAuliffe was a high school social studies teacher from Concord, New Hampshire. She planned to teach two 15-minute lessons from the Space Shuttle.

QUESTION OF THE WEEK
I am a bit confused on the proper name of our moon, the Moon. If I refer to a friend "Susan" in this sentence, "I will be going to the store with Susan", I do not call her "the Susan". What gives with the proper names of planets and moons? Lisa M.

That is a great question. You are correct, the name of the Earth's moon is "the Moon". I had to look this up. Here is what the International Astronomical Union (IAU) decided.

> "The IAU has been the arbiter of planetary and satellite nomenclature since its inception in 1919, and IAU recommendations rest on well-established scientific facts and have a broad consensus in the astronomical community. The designations of the then major planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto)

> and the Earth's satellite (Moon) appear in IAU Resolution No. 10, which was approved by the XVIth General Assembly of the IAU in Grenoble, France in 1976."

Therefore, the designation of our Moon is "the Moon", with a capital M and used as a name (a proper noun). The same applies to the designation of our planet — "the Earth", of our Solar System (IAU Style Manual, 1989) and to all the other major planets. At first, it may seem these much-treasured celestial objects don't have "proper" names. However, it is just the opposite. Calling our Moon "the Moon" and our Solar System "the Solar System" reinforces their importance to humanity — they are not just any moon or solar system.