

WEEKLY STARGAZERS' NEWSLETTER

by Dr. Bob

Volume 6, Issue 35

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:
09/06/22 – 09/12/22

Etowah GYSTC
Website QR code



FUN FACT of the Week:

Jupiter's largest moon, Ganymede, has a salty ocean that contains more water than on Earth. The moon is larger than Mercury and if it were orbiting the Sun instead of Jupiter, it would be a planet. Ganymede is one of the four moons that Galileo saw in 1610.

Ganymede was discovered by Italian astronomer Galileo Galilei on Jan. 7, 1610. The discovery, along with his discovery of three other large moons around Jupiter, was the first time a moon was discovered orbiting a planet other than Earth.

MOON FOR THE WEEK:

The Moon will be Full Moon on Saturday, September, 9/10. September's full is called the Corn Moon because during the crops are gathered at the end of the summer season. This is also a time when the Moon, because of the crisp air, it appears particularly bright, letting farmers continue to gather into the night.



The September moon is also called the Barley Moon. It is often the Full Moon nearest the autumnal equinox, earning the additional title of 'Harvest Moon'.

During the Full Moon, the Moon rises at Sunset as the Moon and Sun are at opposite sides of the Earth.

Currently, the Moon is 364,492 kms (226,485 miles) from Earth. Last month the Moon was 371,909 kms (231,093 miles) from the Earth which is 7,417 (4,608 miles) closer than it was.

HORIZON TO HORIZON PLANET VIEW

The sun rises at 7:17 a.m. (EDT) and sets at 8:01 p.m. (EDT). As with the past couple weeks, the Sun still in the constellation **Leo**, the Lion. In addition to the Moon getting closer to the Earth, the Earth is getting closer to the Sun. Last week it was 1.0098 and this week it is 1.008 AUs away!

The Sun will reach an altitude of 62.4 degrees above the horizon. Last week the Sun was at an altitude of 64.9 degrees above the horizon by comparison.

The Planets:

Mercury sets in the evening sky at 8:46 p.m. which is 45 minutes after the Sun. If you have a good low horizon you might get a glimpse of this elusive planet. Mercury crosses the meridian at 3:04 p.m., near mid-day.

Venus rises at 6:18 a.m. which is an hour before the Sun. Since Venus is so bright, it would be easy to see in the morning sky, if it were higher. Unfortunately, right now it is still a bit too low to be seen very well. Earth's Twin crosses the meridian at 12:53 p.m., shortly after lunch.

Mars, with its two moons, rises at 12:00 noon. The Red Planet should be seen in the East and cross the sky until sunrise the next morning. The best time to spot it is in the early morning before sunrise. Mars crosses the meridian at 7:11 a.m. so if you are looking before sunrise, it will be just east of the meridian. To know you are seeing this planet, look for its amber hue. It is pretty bright and will be easy to spot.

Jupiter rises in the East at 9:02 p.m. By mid-night it will be high in the eastern sky. It will cross the meridian at 3:08 a.m. If you get up before sunrise, it will be to the right of the meridian and very bright. Jupiter is an easy planet to view, all you need is clear skies. If you have a pair of binoculars, you can easily see the four Galilean Moons. In all, Jupiter has 79 moons. With a small telescope you might also be able to see the Great Red Spot in its surface.

Saturn rises at 6:57 p.m. and can be seen all night long. The Ringed Planet is a great evening sky object. Saturn crosses the meridian at 12:15 a.m., just after mid-night, so it is high in the sky all night long. It takes a telescope with a magnification of at least 40x to see the rings of this Ringed Planet.

MARS ROVER PERSEVERANCE

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

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

SATELLITES FOR THE WEEK (ISS PASSES):

09 Sep	-1.1	05:42:48	10°	NNW	05:45:18	19°	NNE	05:47:47	10°	E	visible
10 Sep	-0.6	04:56:25	13°	NNE	04:56:37	13°	NNE	04:58:14	10°	ENE	visible
10 Sep	-3.9	06:30:23	10°	NW	06:33:44	82°	SW	06:37:04	10°	SE	visible
11 Sep	-3.0	05:43:59	31°	NNW	05:45:15	50°	NE	05:48:31	10°	ESE	visible
12 Sep	-0.7	04:58:52	15°	E	04:58:52	15°	E	04:59:38	10°	E	visible
12 Sep	-2.5	06:31:53	17°	W	06:33:19	22°	SW	06:35:59	10°	S	visible
12 Sep	-2.0	21:33:14	10°	SW	21:34:46	25°	SSW	21:34:46	25°	SSW	visible

Other Satellites:

The last satellite to be launched into the Solar System, is New Horizons. It was launched on January 19, 2006 and can be seen in the constellation, Sagittarius.

CELESTIAL FEATURE OF THE WEEK:

Lacerta

Lacerta is one of the 88 modern constellations defined by the International Astronomical Union. Its name is Latin for Lizard. A small, faint constellation, it was created in 1687 by the astronomer Johannes Hevelius. The stars form a faint zig-zag pattern in the night sky.

Lacerta is typical of Milky Way constellations: no bright galaxies, nor globular clusters, but instead open clusters, the faint planetary nebula IC 5217 and quite a few double stars.

HISTORY OF THE WEEK:

September 8, 1966, Star Trek premiered

Star Trek series debuted in the US on September 8, 1966 and aired for three seasons on NBC. It followed the voyages of the starship USS Enterprise, a space exploration vessel built by the United Federation of Planets in the 23rd century, on a mission "to explore strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before". In creating Star Trek, Roddenberry was inspired by C. S. Forester's Horatio Hornblower series of novels, Jonathan Swift's 1726 novel Gulliver's Travels, the 1956 film Forbidden Planet, and television westerns such as Wagon Train. It is interesting that later spinoffs of the series changed the script from "boldly go where **no man** has gone before" to a more socially acceptable script "boldly go where **no one** has gone before."

Sept 9, 1789: William Bond BORN

In 1806, when he was seventeen years old, Bond saw a solar eclipse. Soon thereafter, he became an avid amateur astronomer.

When he built his first house, Bond made its parlor an observatory, complete with an opening in the ceiling out of which his telescope could view the sky.

He was an American astronomer, and the first director of Harvard College Observatory.

Sept 10, 1857: James Keeler

He was an American astronomer.

Keeler was the first to observe the gap in Saturn's rings

Along with George Hale, Keeler founded and edited the Astrophysical Journal, which remains a major journal of astronomy today.

QUESTION OF THE WEEK

How does the size of Stars compare with the Sun?

Leonard M.

The sun is the largest and the most massive object in the solar system, but it is just a medium-sized star among the hundreds of billions of stars in the Milky Way galaxy.

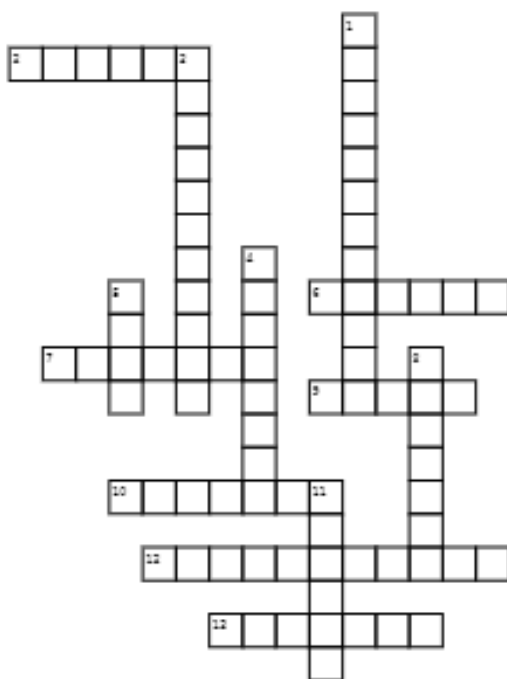
You could put 1.3 million Earths into the Sun.

Betelgeuse, a red giant, is about 700 times bigger than the sun and about 14,000 times brighter. This means the volume of Betelgeuse is nearly 43 million times the volume of the sun.

The largest star known today is Canis Major star VY Canis Major. Its volume is 2.8 billion times large than the Sun

There are some stars that are barely the size of Mercury... Pulsars

The Stargazers' Newsletter : 9-6-22



Down:

1. What is the name of the last Martian rover that is currently operating on the planet?
3. The New Horizons satellite was launched on January 19, 2006 and can be seen in the constellation, _____.
4. Which of Jupiter's moons has more water than Earth?
5. Which planet has an amber hue?
8. Which planet has 79 moons and a Great Red Spot.
11. What is another name for Saturn? It is the _____ Planet.

Across:

2. Mars two moons, one is Eros and the other is _____.
6. Which planet rises in the East at 6:57 p.m. and is visible all night long?
7. Planet that is closest to the Sun.
9. Which planet is called Earth's Twin?
10. What was the first satellite that first passed by Saturn?
12. The creator of the iconic TV Program, Star Trek, is _____.
13. What is the name of the constellation that is referred to as the Lizard?