

STARRY SCOOP

Editor: Kaitlynn Goulette



WHAT'S UP

Along with the warmer weather, we also have the seasonal spring constellations sailing through our southern sky. Stargazers can easily spot the large star pattern of Leo the Lion with their unaided eye, as it resembles its namesake. To the west of Leo is the constellation Cancer, which holds the fabulous Beehive Cluster. Binoculars resolve this naked-eye fuzzy patch into a breathtaking collection of stars that are gravitationally bound together and were born from the same nebula. To the southeast of Leo is the bright star Spica, which is in the constellation Virgo. For those with a telescope under dark skies, you can find countless galaxies in this region of the heavens. Spring is nothing short of a stargazer's paradise.

If you have the courage to set your alarm clock for a pre-sunrise awakening, you can find the planets Jupiter, Venus, Mars, and Saturn in a "line" formation, parading along the ecliptic, or path of the sun. Only weeks after Venus's greatest western elongation, it remains shining nearly at its brightest and is the easiest to spot. A bit to the west of Venus, appearing to the naked eye as 1st magnitude stars do, you can find the golden-colored Saturn with reddish Mars nearby. Jupiter is the most difficult to view and requires a low horizon, but is an attainable observation especially by month's end. Look for the waning crescent moon in the vicinity of these planets on April 24-27.

This month, we have the annual Lyrid meteor shower running from April 16-25, peaking on the night of the 22nd into the morning of the 23rd. Its meteors radiate from the constellation Lyra, but can appear anywhere in the sky. For best viewing, find a dark spot away from light pollution after midnight.

Thirty-two years ago, the famous Hubble Space Telescope was deployed by the space shuttle Discovery. Over the years, it has made over 1.3 million observations that have taught us much about the universe. It verified the existence of dark energy and helped us learn the approximate age of the universe (13.8 billion years). The Hubble Telescope is still in operation today and will very soon be joined by NASA's James Webb Space Telescope (JWST). Along with its infrared-detecting technology, the JWST will be able to see objects nine times fainter than the Hubble, and promises to deliver new discoveries.

APRIL'S SKY

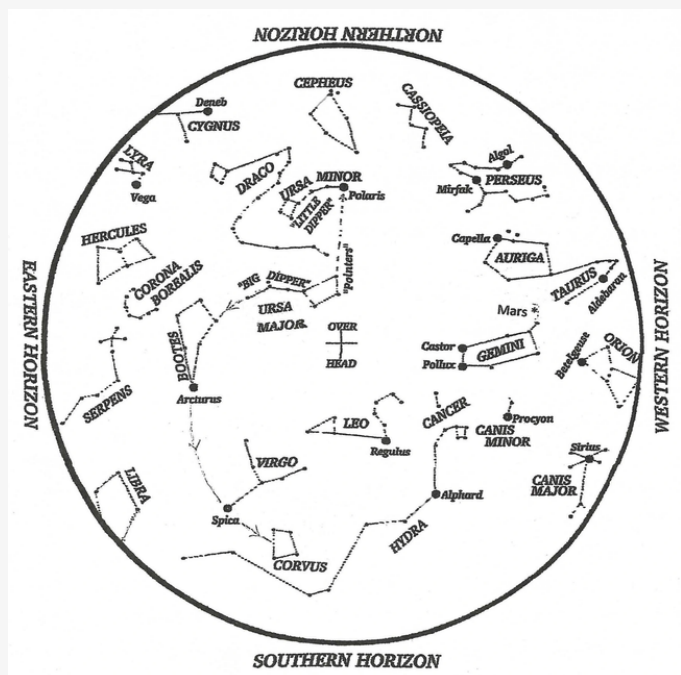
1: New Moon

16: Full Moon

22-23: Lyrids Meteor Shower Peak

29: Mercury at Greatest Eastern Elongation

30: New Moon



Credit: Roger B. Culver

Hold star map above your head and align with compass points.

OBSERVATIONS

With all the stars in the night sky, stargazers often forget about the one that is closest to home, our sun. Observing the sun is very rewarding, but always be sure to view the sun with the proper equipment and a safe solar filter.

When observing the sun, I typically use my 8-inch Dobsonian telescope with a full-aperture, homemade, white-light Seymour Solar filter. This filter has a neutral density of 5 and only allows 0.001% of the sun's light to pass through it.

Finding the sun with a telescope is different than finding objects at night. To locate the sun, I use a Helio-Pod that I attained from the late STARS Club president, my friend Alan Rifkin. Strapped on the optical tube, the Helio-Pod uses a pinhole to project a dot onto a bullseye, which is how it aligns the telescope to the sun.

Through my solar filter, I viewed the sun's photosphere where I could see sunspots blotching its surface. I've recently had the opportunity to observe for several consecutive days and it was satisfying to see the sunspots dynamically change as they progressed across the sun.

I will be attempting more solar viewing to better observe faculae and granules, which are more subtle features and require better atmospheric conditions. I hope to report on these solar observations soon!

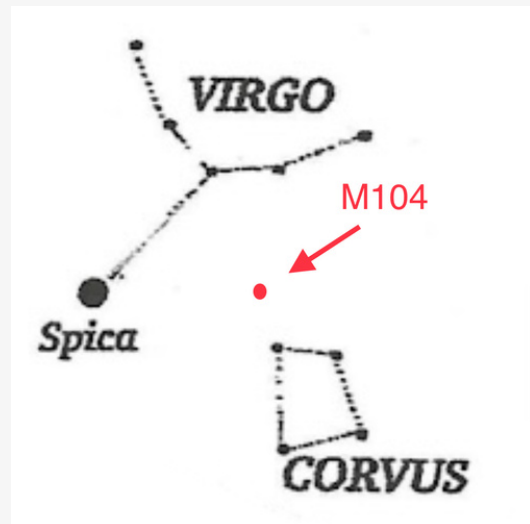


The purpose of the Starry Scoop is to communicate current astronomy and space events. If you want to share your observations or get digital copies of the Starry Scoop, contact starryscoop@gmail.com. The Starry Scoop is now on Facebook. Clear skies!

OBJECT OF THE MONTH

Messier 104 (M104), better known as the Sombrero Galaxy, is this month's featured object. The Sombrero Galaxy is a nearly edge-on spiral galaxy. Its galactic center is uncommonly bright and large, and the galaxy has a noticeable dust lane where stars are being born. M104 is located about 28 million light-years away and is about 50,000 light-years across.

Under dark skies, a large pair of binoculars or a small telescope will reveal this galaxy. It will take at least a 10-inch-aperture telescope to resolve the dust lane. You can find M104 about 10 degrees west of Spica, the brightest star in Virgo. Use the star map below to help you find it.



Sombrero Galaxy
Photo by Kaitlynn Goulette