



STARRY TRAILS

JULY 2019

This month we celebrate the 50-year anniversary of the first human to set foot on another world!! On July 20, 1969 Neil Armstrong stepped down on the Moon's surface and spoke the famous words:
That's one small step for man, one giant leap for mankind!

Along with our celebration of the Apollo missions, we have a spectacular month for stargazing and planet watching! Saturn returns to our evening sky, joining brilliant Jupiter in the south-southeastern sky (Illustration 1). If you have a backyard telescope, this is a great time to enjoy. Also, with the opening of Milky Way season, this happens to be the best time of year to lay out on a warm summer night, with binoculars, and leisurely scan through the night sky! The summer Milky Way offers great views of many celestial delights! We have so much to see tonight, are you ready?! Once again, our hike will begin around 10:00pm. Don't forget your Starry Trail Map, bug spray, light jacket and lawn chair or blanket.

We will begin our hike by facing west or the fading colors of the sunset. Low in the sky is the bright star, Regulus, which is part of the constellation Leo, the Lion. Turn left or south. The brilliant object that catches your eye is the planet Jupiter! Pick up your binoculars and focus on Jupiter. If you are steady, you may see a few pinpoints of light around Jupiter. These would be the largest moons of Jupiter! When you view Jupiter through a telescope, you will clearly see the four Galilean Moons. The bright star to the right of Jupiter is Antares, the heart of Scorpius.

To the left of Jupiter, you will see a golden colored object, which is the planet Saturn. Saturn is truly spectacular to view through a telescope! To the right of Saturn is the constellation, Sagittarius, which looks more like a teapot (Illustration 1). Between Scorpius and Sagittarius is the best part of the sky to scan with your binoculars and telescope! It is rich with deep sky wonders!

Hike upwards and overhead to the brilliant yellow-orange star, Arcturus. To the left of Arcturus, you will see a semi-circle of stars. It looks almost like a necklace, but it is the Northern Crown or Corona Borealis. I think it looks like a smiley face! Just a little more to the left will be a keystone shape in the stars. This is the body of Hercules, the bravest and strongest hero! Binocular time! Take your binoculars and scan around the part of Hercules facing Corona. Do you see the fuzzy object? This is the finest Globular Star Cluster (M13) in the northern skies (Illustration 3)!

Turn to the opposite part of the sky or north. The Big Dipper is beginning to swing down through the sky. Take the two stars at the end of the cup and draw an imaginary line to the next bright star. You have reached the North Star! The North Star, or Polaris, is at the end of the handle of the Little Dipper. Also, down and to the right of the Little Dipper is Queen Cassiopeia, the W-shaped constellation (Illustration 4).

Trek to the right and you will be facing east. When looking up, you will see a very bright star, which is Vega. Journey down and to the left and you will come to Deneb. Now go right and you have reached Altair. When you connect these three bright stars you have made the Summer Triangle. Running through the Summer

Triangle is the Milky Way, our galaxy! Pop open that lawn chair or lay out on your blanket. Take your binoculars and scan through that part of the sky from north to south. See all of those stars?! Even if you cannot view the Milky Way, due to light pollution, you can still see so many stars with your binoculars!

Head back to Deneb. Imagine this to be the tail of Cygnus, the Swan. To the right will be three stars in a line. These would be the outstretched wings. You should also be able to see the long neck and head of the swan extending from the wings. The head of the swan would be directly below Vega. This star is Albireo, which is a beautiful double star through a telescope (illustration 5)!

There was so much to see tonight! Maybe you were lucky enough to see a shooting star!

Speaking of shooting stars, next month, the Perseids Meteor Shower!!!

Highlights

July 2 – New Moon.

July 4 – The Crescent Moon passes north of Mars & Mercury.

July 4 – Earth is at aphelion or furthest distance from the Sun.

July 9 – First Quarter Moon.

July 9 – Saturn at opposition.

July 13 – The Moon passes north of Jupiter.

July 16 – The Moon passes south of Saturn.

July 16 - Full Moon. According to folklore it is the Full Thunder Moon or Hay Moon.

July 20 - **Happy Moon Day. 50 years ago, Apollo 11 Commander Neil Armstrong and Lunar Module Pilot Buzz Aldrin became the first humans to set foot on the Moon!**

July 24 – Last Quarter Moon.

July 30 – Southern Delta Aquarid meteor shower peaks.

July 31 – New Moon.

Brightest Stars: West – Regulus Southwest – Spica South – Antares Overhead – Arcturus East – Vega, Deneb, Altair.

Binocular Highlights The Moon, Jupiter, Hercules Globular Star Cluster M13, Milky Way Deep Sky Objects to the left of Antares in Scorpio.

Telescope Highlights The Moon, Jupiter, Saturn, Albireo, M4, M5, M6, M7, M51, M44, M13, M57, M3, M81, M82, M10, M11, M12, M27, M16, M17, M20, M21, M22, and M23.

Starry Trails is a fun & easy way to explore the night sky as it appears from your backyard! Journey over to **StarryTrails.com** & get everything you need to navigate the night sky from sky maps, illustrations, even audio and video versions of Starry Trails!

Follow [Starry Trails on Facebook](#) for weekly discussions & special sky events!

Night Sky Illustrations created by Suzie Dills using Starry Night Backyard & Stellarium.

Illustrations courtesy of Cassandra Dills

Written by Suzie Dills – Remember to download your Illustrations & Star Map!