



STARRY TRAILS

JULY 2017

The excitement continues to build for the Solar Eclipse on August 21st from 1:00 pm – 4:00 pm!! We are not in the path of totality, but we will experience about 85% shadowing of the Sun (occurs around 2:20 pm)! **THE TOP PRIORITY IS HAVING A PLAN FOR SAFELY VIEWING THE ECLIPSE. NEVER LOOK AT THE SUN WITH YOUR EYES, BINOCULARS OR A TELESCOPE (Unless you have proper filters)!!** If you are planning to view the eclipse from our area, visit <https://eclipse2017.nasa.gov/safety> for safe solar viewing techniques.

In the meantime, we have a spectacular month for stargazing and planet watching! If you have a backyard telescope, this is a great time to enjoy. We have two fantastic planets in the evening sky. Jupiter continues to blaze in the southwest (Illustration 1) and Saturn shines bright in the south (Illustration 2). Mercury will make a guest appearance the first week in July, very low in the west, northwest, after sunset. The best evening to view Mercury will be July 25. Look for the Crescent Moon. Mercury will be to the right with the star Regulus right above Mercury. 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. Once again, Jupiter will be the brilliant object that will catch your eye! The bright star to the left of Jupiter is Spica, part of the constellation Virgo. Turn left or south, 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 a bright red-orange star which is Antares, the heart of Scorpius (Illustration 4). To the left of Scorpius is the constellation, Sagittarius, which looks more like a teapot. 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 actually 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 5)!

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 6).

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 7)!

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 and the Solar Eclipse!!!

Highlights

Venus is the dazzling gem in the eastern sky before sunrise!

July 1 – The Moon passes north of Jupiter.

July 6 – The Moon passes north of Saturn.

July 9 – Full Moon. According to folklore it is the Full Thunder Moon or Hay Moon.

July 16 – Last Quarter Moon.

July 20 – The Moon passes south of Venus before sunrise.

July 20 - Happy Moon Day. 48 years ago, Apollo 11 Commander Neil Armstrong and Lunar Module Pilot Buzz Aldrin became the first humans to set foot on the Moon.

July 23 – New Moon.

July 25 – The Crescent Moon, Mercury and Regulus in the west, northwest after sunset.

July 28 – The Moon passes north of Jupiter.

July 30 – Southern Delta Aquarid meteor shower peaks.

July 30 – First Quarter 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, Mercury, 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 own backyard!

Journey over to **StarryTrails.com** & get everything you need to navigate the night sky! Starry Trails is a free publication & your able to make copies to pass along to your friends & family so they can learn and enjoy the night sky with you! **You can 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 www.CassandraDills.com

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