



STARRY TRAILS

SEPTEMBER 2020

As we head through late summer into early autumn, our two largest planets are easy to spot in the southern sky, after sunset. Jupiter is brilliant and will certainly catch your eye. Saturn is to the left of Jupiter, not as bright (Illustration 1). Mars continues to brighten, rising two hours after sunset on September 1st and one hour after on September 30th (Illustration 2). By month-end, Mars will be slightly brighter than Jupiter. Also, we celebrate the first day of autumn on September 22.

At this time of year, it is great to head outside and spend a few minutes enjoying the late summer sounds! We can still enjoy some warm nights, but autumn is just around the corner. Are you ready to enjoy our starry hike? Grab your Starry Trail map, bug spray, binoculars, jacket and chair or blanket.

Our hike begins around 8:30pm. To start, we will face west or the spectacular colors of the sunset. Look left and you will see brilliant Jupiter. Head slightly left and you will notice a golden colored object, Saturn. What a lovely sight in a telescope! Just to the right of Jupiter and Saturn you will notice the constellation Sagittarius, which looks more like a teapot. Journey right where the red, orange star Antares, the heart of Scorpius, can be found (Illustration 3). Between Scorpio and Sagittarius is the best part of the sky to scan with your binoculars and telescope! It is rich with deep sky wonders!

Turn right or back to direction west. Trek up and you will see a bright yellow, orange star, Arcturus. Arcturus has been with us since spring. Just above 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! Right overhead will be a keystone shape in the stars. This is the body of Hercules, the bravest and strongest hero (Illustration 4)! 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!

Turn right 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, to the right of the Little Dipper is Queen Cassiopeia, the W-shaped constellation (Illustration 5). Grab your binoculars. From the top point of the W shape, scan slowly to the right and up slightly. Do you see a fuzzy circular shape? That is the Andromeda Galaxy. It is 2.5 million light years away! Find the bottom point of the W. Scan once again to the right and down slightly. You will come upon the Double Cluster in Perseus.

Hike again to the right and you will be facing east. When looking up overhead, 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. Great job! 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 those stars?! Even if you cannot view the Milky Way, due to light pollution, you can still see so many stars with your binoculars!

**Here is a challenge: scan to the left of Altair about 1/3 of the way to Vega.
Do you see the group of stars that resemble an upside-down coat hanger? Cool!**

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! If you look just below the Summer Triangle, you will see a group of stars that look like a kite. This is the constellation, Delphinus, the Dolphin. Journey below Delphinus. Notice four stars that form a square. This is the Great Square of Pegasus, a sure sign of autumn (Illustration 6)! Below Pegasus you will see a dazzling red, orange object, the planet Mars!

**Take a few minutes and listen. Farewell summer until next year!
Next month Mars at its brightest since 2003 and a Blue Moon on Halloween!**

Highlights

- Sept 2** – Full Moon.
- Sept 2** – The Moon passes 4 degrees south of Neptune.
- Sept 6** – The Moon passes less than 1 degree north of Mars.
- Sept 6** – The Moon passes 3 degrees south of Uranus.
- Sept 10** – Last Quarter Moon.
- Sept 11** – Neptune at opposition.
- Sept 14** – The Moon passes north of Venus.
- Sept 17** – New Moon.
- Sept 22** – Autumn begins in the Northern Hemisphere at 9:31 am.
- Sept 23** – First Quarter Moon.
- Sept 25** – The Moon passes south of Jupiter & Saturn.
- Sept 29** – The Moon passes 4 degrees south of Neptune.

Brightest Stars: West – Arcturus. **Overhead** – Vega, Deneb, Altair. **South** – Antares.

Binocular Highlights - The Moon, Jupiter, Hercules Globular Star Cluster M13, Milky Way from south to north starting between Scorpio and Sagittarius, Double Cluster (NGC 869 & 884), and Andromeda Galaxy (M31).

Telescope Highlights - The Moon, Jupiter, Saturn, Neptune, Uranus, Mars, Albireo, M2, M3, M4, M6, M7, M8, M51, M13, M57, M81, M82, M10, M11, M12, M27, M15, M16, M17, M20, M21, M22, M23, M25, M31, M39, M92 and NGC 869&884.

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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!