



STARRY TRAILS

SEPTEMBER 2016

Wow! Is it September already? Let's get out and enjoy those last warm nights and the phenomenal sounds of late summer! Take a few minutes to listen.... It is time to say farewell to the planet Jupiter until next year. We certainly have had great views of Jupiter this year! But our planet show continues in the south, southwest after sunset. It will be great to watch as Mars continues to move farther to the left of Saturn and Antares. See Illustrations 1 & 2 for the positions of these three objects at the beginning of the month and at the end.

Let's head out for our hike. Remember, Autumn is just around the corner, so there may be a few cool nights. 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. Turn slightly to the left and you will notice three bright objects. Reddish, orange Mars is the brightest. Head right to the golden colored object, which is Saturn. Just below Saturn is the red, orange star Antares, the heart of Scorpio. Continue to head left of Antares to the constellation, Sagittarius, which looks more like a teapot. 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! (Illustration 3)

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 actually 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! Binocular time! Take your binoculars and scan around the part of Hercules facing Corona. Do you see a small fuzzy object? This is the finest Globular Star Cluster (M13) in the northern skies! (Illustration 4)

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. 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. (Illustration 5)

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 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! Here is a challenge: scan to the left of Altair. 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)

Take a few minutes and listen to the late summer sounds! Farewell summer until next year!

Highlights

Sept 1 – New Moon

Sept 4 – The Crescent Moon joins Venus in the western sky after sunset.

Sept 8 – The Moon passes north of Saturn.

Sept 9 – First Quarter Moon.

Sept 9 – The Moon passes north of Mars.

Sept 16 – Full Moon. According to folklore, this is the Harvest Moon. This Full Moon appears closest to the Autumn Equinox and marks a period when the Moon rises slightly later on several consecutive evenings which is an aid to late harvesting.

Sept 22 - Autumn begins in the Northern Hemisphere at 10:21 am.

Sept 23 – Last Quarter Moon.

Sept 28 – Mercury is at its highest before dawn in the eastern sky. Best morning show of the year for Mercury.

Sept 30 – New Moon. We have two New Moons this month!

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

Binocular Highlights - The Moon, 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, Mars, Saturn, Neptune, 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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Written by Suzie Dills – Remember to download your Illustrations & Star Map!