



STARRY TRAILS

NOVEMBER 2017

As we head into the month of November, the lovely planet Saturn will continue to sink lower in the southwestern sky each night. Early morning is where a spectacular planet show is taking place, in the eastern sky before sunrise. Venus and Jupiter will put on quite a show during the second week of the month (Illustration 1)! Don't forget the Leonid Meteor Shower peaks, November 17th, a moon free night!

Once we have changed back our clocks to Eastern Standard Time, it will be great to go outside and enjoy an evening of stargazing right after dinner! The evenings are getting colder, so we will need to put on our winter coats, gloves, hats and maybe boots.

We will begin our hike at 7:00 pm. Grab your Starry Trail map and binoculars and let's go! Face west, or where the sunset and you will see a bright star which is Vega. Now trek left to another bright star which is Altair. Now trace up and to the right to Deneb. If you connect these three stars you have made the Summer Triangle. Great! Running through the Summer Triangle is our Milky Way galaxy! Take your binoculars and scan through that part of the sky. Look at 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!

Hike back to Deneb. Imagine this to be the tail of Cygnus, the Swan. Below Deneb, you will see three stars in a line. Those make up the 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 to the left of Vega. This star, Albireo, is a beautiful double star through a telescope (Illustration 2).

Now look directly overhead and you will see four stars that make a square. This is the Great Square of Pegasus. Turn to the right, which is direction north. You will see a group of stars that are in the shape of a "W". This is the constellation, Cassiopeia. Grab your binoculars again. From the top point of the W shape, scan slowly up and to the right (about halfway to Pegasus). Do you see a fuzzy circular object? That is the Andromeda Galaxy (M31). 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.

Journey down to the northern horizon and you will find the Big Dipper. By the way, look at the second star in the handle, with binoculars. It is a double star! Head down to the cup of the Big Dipper. 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 is at the end of the handle of the Little Dipper (Illustration 3).

Our last stop is direction east. So, turn to the right once more. I saved the best part for last! Look straight ahead. Do you see a small cluster of stars? This cluster is the Pleiades or the Seven Sisters. The Pleiades has to be my favorite group of stars to gaze at through my binoculars (Illustration 4). Take a look! Spectacular! Below the Pleiades is a red, orange star, Aldebaran. Aldebaran is part of the constellation, Taurus, the Bull. Look slightly left to another bright star which is Capella.

It was great that we had our binoculars tonight. So much to see! Head inside where it is warm.
Next month, the winter sky and our most magnificent picture in the sky!

Night Sky Highlights

November 4 – Full Moon. According to folklore it is the Full Beaver Moon.

November 5 - Daylight Savings time ends at 2am.

November 8-18 – Venus & Jupiter can be seen in the same field of view in the eastern sky 30 minutes before sunrise.

November 10 – Last Quarter Moon.

November 13 – Venus & Jupiter less than a degree apart in the eastern sky 30 minutes before sunrise.

November 14 – 17 – The Crescent Moon joins Venus & Jupiter in the eastern sky before sunrise.

November 17 – Leonid Meteor Shower peaks under a Moon free sky!

November 18 – New Moon.

November 20 – The Crescent Moon passes north of Saturn.

November 26 – First Quarter Moon.

Brightest Stars: West: Vega, Deneb, Altair **South:** Formalhaut **North East:** Capella **East:** Aldebaran

Binocular Highlights: The Moon, Milky Way from Cassiopeia through the Summer Triangle, Andromeda Galaxy M31, Double Cluster (NGC 869&884), Pleiades.

Telescope Highlights: The Moon, Uranus, Neptune, Albireo, M31, M39, M1, M2, M27, M57, M15, M11, M81, M82, M 36, 37, 38 (near Capella), NGC869 & 864.

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!