



# STARRY TRAILS

*FEBRUARY 2018*

Here is something that doesn't happen very often... a month without a Full Moon! February 2018 will not have a Full Moon. It is right in between two months of two Full Moons, January & March. Of course, the second Full Moon in a month is called a Blue Moon. Also, around mid-month, we will see the return of the dazzling planet Venus low in the west, southwestern sky after sunset. Venus will climb higher each night and will remain an evening star until October! The big planet show continues in the early morning sky before sunrise. Look for brilliant Jupiter joined by Mars and Saturn in the south, southeast (Illustration 1). Mars will continue to get closer to Earth in its orbit. Mars is 143 million miles away but will only be 36 million miles in July!

Now, let's grab our winter coats, hat, gloves, warm socks and boots and enjoy our hike. As we head out around 7:30, make sure to have on hand your Starry Trail Map and binoculars. Orion is only one of the phenomenal celestial treats that we will see on our hike. If you are having trouble finding Orion, start by facing west or where the sun set. Turn left, or south. You will see three stars in a row, which make up the belt of Orion. The bright red-orange star up and to the left of the belt is Betelgeuse. The bright blue-white star down and to the right of the belt is Rigel. Now with your binoculars scan just below the belt. You will notice a small fuzzy area. That is the Orion Nebula (M42). New stars are forming in that hydrogen gas cloud! We call this a stellar nursery! Now let's find Orion's best friend. Journey back to the belt of Orion. Draw a line down and to the left, to the brightest star in that part of the sky. You have reached Sirius, the Dog Star. Sirius is the number one brightest star in the night sky. Sirius always follows Orion through the night!

Head back to Orion's Belt. Hike up and to the right and you will see a bright red-orange star. This is Aldebaran, the eye of Taurus, the Bull. Continue to the right and you will notice a small cluster of stars. These stars are the Pleiades or the Seven Sisters (Illustration 2). The Pleiades has to be my favorite group of stars to gaze at through my binoculars. Take a look! What a treasure!! We are going to continue on a counter clockwise loop while looking overhead. Next stop, up and to the left, is another bright star, Capella. Swing to the left to the two stars that look almost identical, Gemini, the Twins.

Hike to the opposite part of the sky, or north. You will notice the Big Dipper up on its handle. By the way, look at the second star in the handle, with binoculars. It is a double star! Head 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, or Polaris, is at the end of the handle of the Little Dipper.

Trek to the left and you will see a group of stars that are in the shape of a "W". This is the constellation Cassiopeia (Illustration 3). Grab your binoculars again. From the top point of the W shape, scan slowly up and to the left. You will come upon the Double Cluster in Perseus. Find the bottom point of the W. Scan once again to the left. Do you see a fuzzy circular shape? That is the Andromeda Galaxy (M31). It is 2.5 million light years away!

Finally, we will skip over to the cup of the Big Dipper. Locate the flat part of the cup. Look slowly to the right for the shape of a backwards question mark. This is the head of Leo, the Lion (Illustration 4), a sure sign of spring! How about a challenge? Take your binoculars and scan between Leo and Gemini. Do you see the beautiful Beehive Star Cluster (M44)?

Wow what a fabulous night of stargazing! So, remember... with a little practice, you can see so many awesome sights!! Head in to warm up and enjoy some hot chocolate!

### **Highlights**

**February 7** – Last Quarter Moon.

**February 7** – Moon passes north of Jupiter in the early morning sky.

**February 8** – The Crescent Moon sits halfway between Jupiter & Mars in the early morning sky.

**February 11** – The Moon passes north of Saturn in the early morning sky.

**February 15** – New Moon.

**February 23** – First Quarter Moon.

**Brightest Stars: South** – Sirius, Betelgeuse, Rigel, Aldebaran, Procyon Overhead – Capella, Castor, Pollux  
**East** – Regulus

**Binocular Highlights** The Moon, Andromeda Galaxy M31, Double Cluster near Perseus, Pleiades, Orion Nebula M42, Beehive Cluster M44, Deep sky objects around Capella (M36,37,38) thru the Milky Way to Cassiopeia

**Telescope Highlights** The Moon, Uranus, M1, M31, M41, M42, M44, M51, M81, M82, M35,36,37,38 (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](http://www.CassandraDills.com)

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