

March 2016

Spring Skies by J.D. Maddy, President of Astronomers of Verde Valley

High in the sky to the northwest after sunset are the constellations of Cassiopeia, the Queen of Ethiopia and her daughter Andromeda, the Princess. Nearby is also Andromeda's husband, Perseus. These constellations are rapidly heading toward the horizon each night and offer best evening views. These constellations are also circumpolar constellations.

The true circumpolar constellations never set below the horizon. But, several constellations set and then rise again quickly in the morning sky. This means that if you miss them in the evening sky this spring, they will come up again before sunrise in the northeastern sky this summer.

Popular objects to observe in these constellations are the Double Cluster in Perseus, Algol the Demon Star in Perseus and the Andromeda Galaxy in Andromeda. These objects can be seen without optical aid with the dark skies we have here in Arizona. Of course, binoculars or telescopes will bring them in much closer and offer more detail. Cassiopeia offers several celestial delights, but most need binoculars or a telescope to see very well.

Cassiopeia is a good place to start to find the objects in Perseus and Andromeda. Cassiopeia is the "W" or "M" shape you see in the sky. One side of the letter is squeezed flat a bit with the other side being very triangular in shape. From the top star in the W or M, go about a fists width to the left or west to find the hazy area that is the Double Cluster. This cluster is nearly two Moons wide in the sky and really shows nicely in binoculars. Telescopes need to use low power and have a wide field of view to squeeze both of the clusters into view.

Now go down to the more triangular part of Cassiopeia. Using the triangle as a pointer, go just over two fist widths following the point of the constellation to the Andromeda Galaxy. This is a hazy area that is not very descript visually, but binoculars or a small telescope will show more detail. At nearly 2.5 million light years away, this is one of the few galaxies that can be seen with the unaided eye. And, it is nearly five Moons wide in the sky.

A close look with a telescope will show two more small galaxies near Andromeda. Algol may be a little trickier to find the first time as there are many stars in the area that are of similar brightness. But, Algol is called the Demon Star for a reason. Every 2.6 days the star dims to near invisibility to the naked eye. Then, magically after about 2 hours, the star brightens again. The early sky gazers thought this was a demon, winking at them. Possibly the eye of Medusa. The Arabic meaning of Algol is "the demons head". The true nature of the dimming is a smaller star is passing in front of Algol causing the change in brightness.

And, of course, what spring viewing session would not be complete without a look at the constellation of Orion, the Hunter. This large constellation is high in the south after sunset and also is heading rapidly to the western horizon as summer approaches. Being further south, Orion will disappear into the Sun's glow by June, not to return to the morning sky until August and will not grace the evening skies until November. The showcase piece of Orion is the Orion Nebula. This is a large cloud of hydrogen gas that is forming new stars. At about 1,400 light years away, it is still nearly three Moons wide in the sky. If the Orion Nebula were as close of our brightest star in the night sky, Sirius, the nebula would nearly cover the entire sky.

For local astronomy club info and current events, you can visit the website at astroverde.org. For monthly viewing charts, go to the web sites of either Astronomy Magazine (www.astronomy.com) or Sky and Telescope's (www.skyandtelescope.com). For another monthly chart that is simple to use with lots of information go to www.skymaps.com.