

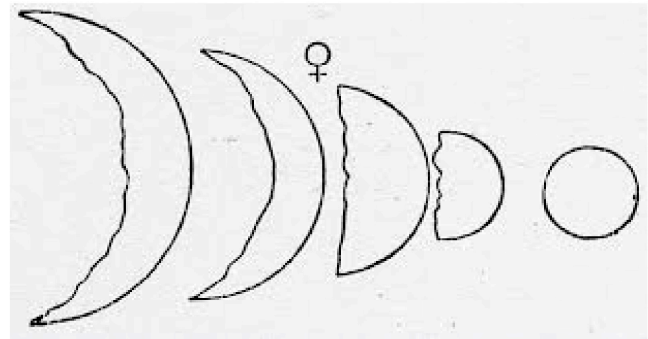


Mountain Skies March 6, 2017

FOUR PLANETS GRACE THE EVENING SKIES

The Planets: The stage is set. Two performers are already on the stage with two waiting in the wings. The two already on stage are Venus and Mars which have been accompanying each other in the evening hours since the first of the year. Look for the two well up in the southwest as the twilight deepens. We can't miss Venus, the brightest of the planets. Those of us who have been watching this "Evening Star" will notice, however, that it is not quite as high lately. Venus is coming around the sun towards us and doing so at a breakneck pace.

As it approaches us, it turns its dark side towards the earth and, if we view it through a telescope as Galileo did 400 years ago, we will see it as a crescent shaped planet that appears larger as it gets closer but also becomes more crescent as we see more of its dark side. Get out a telescope or a pair of binoculars and note this celestial phenomenon.



Galileo's Venus Drawings

Accompanying Venus, as it has been since the first of the year, is the red planet Mars. Look up and to the left of the brilliant Venus to spot this much fainter planet shining with a dull red color. Mars appeared much closer to Venus the last two months but, now, as Venus starts to drop into the evening twilight, the separation between our two closest neighboring planets has increased significantly.

Waiting off stage are both the smallest and the largest of the planets in our solar system. Mercury is at *superior conjunction* at 7 p.m. tonight. Of course, we won't see it then since superior conjunction is the moment at which a planet is directly behind the sun. But Mercury is the fastest

moving planet and it will not be long, about mid-March, before we will see this elusive planet low in the evening twilight. It will then climb higher each night to give us our best evening views of the year.

The largest planet in the solar system is the giant Jupiter which is now rising shortly after 11 p.m. EST. Before dawn it is high in the south lying just above and to the west of the bright star Spica in the constellation of Virgo the maiden. As the earth comes around the sun towards Jupiter, it will rise earlier in the evening. In fact, as Venus dives into the glare of the sun later this month and Jupiter rises earlier, they will switch places as the evening and morning stars. Watch for this.

In the meantime, Saturn, the old man of the gods, is now up in the morning twilight. As is the case with Jupiter, Saturn will also rise earlier each night as the earth chases it around the sun.

The stars: The bright stars of the winter skies still dominate the evening. As mentioned last month, the central figure, Orion the hunter, stands high in the south as the sun sets. Using the belt of Orion as a pointer, we can draw a line to the west to locate Aldebaran, the fierce red eye of Taurus the bull. Note a v-shaped group of stars that marks the face of the bull. This group is known as the *Hyades*, a cluster of stars very important to astronomers in determining distances in the Universe.

Now, look a little farther to the west in Taurus, on the shoulder of the bull, to locate a pretty little cluster of stars called the *Pleiades* or *The Seven Sisters*. There really appear to be only six bright stars in this cluster but a telescope or even a pair of binoculars reveals hundreds of fainter stars. Some people think the Pleiades cluster is shaped like a dipper and mistake it for the Little Dipper. But the Little Dipper is in the north, in the Little Bear and not in Taurus. As the Earth rotates, the Hyades follow the Pleiades across the sky. This has led to a number of legends such as one from Native Americans that holds that the Pleiades are wives being chased by their husbands, the Hyades.

The Sun: The first day of spring is marked by the *vernal* or *spring equinox*, the moment in time when the sun in its apparent path around the sky, crosses the celestial equator on its way north for the spring and summer. This year the equinox occurs at 6:29 a.m. EDT, Sunday, March 20.

Celestial Calendar:

March 12, 2:00 a.m. EST – Daylight Saving Time begins. Set clocks ahead 1 hour.

March 12, 10:54 a.m. EDT – Full Moon

March 12 – The sun moves out of Aquarius the water bearer and into Pisces the fishes

March 20, 6:29 a.m. EDT - Vernal Equinox. Spring begins.

March 20, 11:58 a.m. EDT – Last Quarter Moon