Planets dance in Nov.

See Venus, Jupiter in same view

ALAN SHEIDLER
Popular Astronomy Club

This month, there will be some interesting things in the sky.

Just before sunrise on Monday, Nov. 13, Venus and Jupiter will align very closely, so close, in fact, that they may appear as one very bright star low on the horizon just before sunrise.

If you have a telescope, this would be a rare opportunity to view both planets in the same eyepiece view. You will need an unobstructed view of the eastern horizon and clear weather, which can be a rarity in November. Just fix your gaze on the eastern sky about 5:15 or so.

You will see the crescent moon about a third of the way up. The moon can be a beautiful sight in the crisp morning sky and if you have a pair of binoculars or a small telescope, here's your chance to observe our nearest neighbor in all its glory.

Note the craters which show up in shadowy relief near the day/night terminator. Also, if you are lucky, you might be able to see the dark side of the moon, which actually may be glowing dimly.

If you see this, it's because the dark side of the moon is being illuminated by the Earth. Imagine you are standing on the moon looking up at the Earth in the lunar sky. The Earth is nearly four times the size of the moon, so the Earth is extremely large and bright when viewed from the moon.

Couple this with the fact that when the moon appears as a crescent here, the Earth would be seen as "full" from the surface of the moon. So essentially, the moon's dark side is illuminated by "Earthshine" and, if you are lucky, you may be able to observe this on Nov. 13 or 14.

As you are admiring the moon, take note of the small ruddy red star below it about halfway down. This is not a star at all, but the planet Mars. In mid-November, Mars is more than 200 million miles from Earth, which explains why it is so small and dim to our eyes.

But over the next six months or so, Mars will be making a very close approach to Earth. By Aug. 1, 2018, Mars will be less than 36 million miles from Earth, which is about as close as the two planets ever come.

Next summer, Mars will be the target of many amateur astronomers. Be sure to visit any of the Popular Astronomy Club observing sessions such as the Niabi Zoo public observing sessions to view Mars.

If you miss it next summer, you must wait two years for Mars to make another close approach. So don't blow the opportunity.

Returning to Nov. 13. After viewing the moon and the diminutive Mars, enough time may have passed for great Jupiter and Venus to have just risen.

If you look closely at Jupiter, you will see the cloud bands and the four Galilean moons: Callisto, Europa, Io and Ganymede. Venus will probably not show any features at all, just a very bright disk.