Step out, look up

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Amateur Astronomer

This is the week. The autumnal equinox, and International Observe the Moon Night, all on the same day. How exciting is that.

Saturday, Sept. 22, will be a busy day astronomically speaking.

First the autumnal equinox, the day when the Sun crosses the celestial equator from north to south and our lazy, summer days turn into hazy fall afternoons, or so said a song I heard once.

Equinox is a word that means equal day and night. If we lived on the equator, that would be the case. But, living as we do some 40 degrees north of the equator, equal days and nights won't happen for us until Wednesday, Sept. 26.

To be precise, the autumnal equinox will occur at 10:49 a.m. MDT on Saturday, Sept. 22.

Next on Friday we will observe International Look at the Moon Night. Simply put, to observe the occasion, just go outside and observe the moon. Nothing special is needed, just your two eyes.

Now, if you have binoculars or even a small telescope you would enjoy the experience more. On that day the moon will be at first quarter, which means only half of it will be lit by sunlight.

If you have the equipment, pay special attention to the terminator, the line that separates the light half from the dark half. There is some very interesting cratering in that area.

At the web page www.observethenoonnight.org there is an interactive map showing locations where special events will be held to celebrate the evening. There are five in Nebraska (mostly eastern) and six in Colorado.

Now, to the rest of the sky.

The planets Saturn and Mars have been entertaining us for the past several months with their conjunctions, and movements. Now, Saturn is about to leave the evening sky for a trip around the far side of the Sun before a return to the morning skies in early December.

Tonight, Sept. 19, the moon and the reddish planet Mars will have a very close meeting in the southwest after sunset. The planet will be to the right and slightly below a slender crescent moon.

This next event will take some work. Uranus is one of the giant, outer gas giants that is difficult to locate without some help. It will be at opposition next week which means it will be visible all night long.

On the evenings of Sept. 22 and 23 the blueish-greenish planet will be near a star, 44 Piscium, which will aid in location.

Both are about the same brightness, but the color will show the planet.

They both can be seen from a very dark-sky place without optical assistance, but binoculars or a small telescope at high magnification will be a big help.

Start with the constellation Pegasus. Use the two stars on the left side (as you are looking at it) for pointers. Go east (down) for about the same distance as the width of these two stars to find

the elusive planet. The planet and the star will appear to change places from one night to the next.

Happy hunting.

SKY WATCH: First quarter moon, and autumnal equinox Friday, Sept. 22. Close meeting of Mars and the moon tonight, Wednesday.

NEXT WEEK: More astronomical blathering.