

Harvest moon a stellar sight to see

THE SKY'S
THE LIMIT



NEEL ROBERTS

Harvest time is tough — I mean really tough! If the weather doesn't play against you, broken equipment, shortage of help or cost overruns are sure to linger in the background. Yet the good news about the gathering of the crops is it does eventually end, no matter how drawn out it is. Also, October is the first full month of fall and the moon offers some amazing celestial treats all 31 days. The Harvest Moon occurs about the period of fullness that is nearest to the autumnal equinox and is often mistaken for the modern day Hunter's moon. In the legend of the harvest moon, it is said that all full moons have their own special characteristics based primarily on the whereabouts of the ecliptic in the sky at the time of year that these moons are visible. Neil Young's 1992 folk song hit *Harvest Moon* does some poetic justice, but I think he has his wife or girlfriend more in mind than the crops!

Often, the harvest moon seems to be bigger or brighter or more colourful than

other moons — helping farmers continue production at night — hence the name "harvest moon." These effects have to do with the seasonal tilt of the earth. The warm colour of the moon shortly after it rises is an optical illusion, based on the fact that when the moon is low in the sky, you are looking at it through a greater amount of atmospheric particles than when the moon is overhead. The atmosphere scatters the bluish component of moonlight (which is really reflected white light from the sun), but allows the reddish component of the light to travel a straighter path to your eyes. Therefore all celestial bodies look reddish when they are low in the sky. As for the large size of a full moon when seen low in the sky, it is true that the human eye perceives a low-hanging moon to be larger than one that's high in the sky. This is known as a "moon illusion," and it can be seen with any full moon. It can also be seen with constellations; in other words, an assemblage viewed low in the sky will appear bigger than when it is high in the sky. Needless to say, the harvest moon sets an appropriate background and tone for Halloween!

Sky watch for the next month:

Harvest moon — best time will be Sunday, after

6:30 p.m. in the NEE horizon. You can actually see it physically rise before your eyes due to its position.

Venus and Saturn will be very close together on the morning of Oct. 13, rising at about 6:30 a.m. in the eastern sky before the sun. You can probably get a good view before our star is too bright around 8 a.m.

The Orionids Meteor Shower is an average shower producing about 20 meteors per hour at its peak. This shower usually peaks on the Oct. 21, but it is highly irregular. A good show could be experienced on any morning from Oct. 20-24, and some meteors could be seen any time from Oct. 17-25. This year, a waxing crescent moon will set early, providing an excellent viewing opportunity. Best viewing will be to the east after midnight.

Did you catch the Zodiacal Light last month? It's not easy to find, but from Oct. 17 until the end of the month, check out the eastern sky before the morning twilight. They are a faint, roughly triangular, whitish glow seen in the night sky which appears to extend up from the vicinity of the sun along the ecliptic or zodiac. It was discovered by the astronomer Giovanni Domenico Cassini in 1683 and later explained by Nicolas Fatio

de Duillier in 1684.

Also, check out www.whatsuptonight.net, www.astronomy.com, www.space.com and www.nasa.gov.

Public events for the next month:

Friday Night Stargazing at the Telus World of Science, 701, 11 Street S.W. Calgary. It starts 9 p.m. each Friday throughout October, and the session lasts about an hour. Admission is free. This goes on until the end of May, so check out <http://astronomycalgary.com/events> or call Cassandra McAuley at 403-268-8328 for details.

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Happy Thanksgiving and Halloween, and keep reaching for the sky!

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