ALL PLANETS TO SHINE **CHRISTMAS** NIGHT



NEEL ROBERTS Sky's the Limit

This month, a unique celestial event occurs.

All eight planets will be visible Christmas night starting from twilight, around 4:30 p.m. Look south-southwest as Mercury and Venus will be up until around 5:45 p.m., further south is Saturn, which will be up until 8:39 p.m., and the other two naked-eye planets, Jupiter and Mars, will be visible all night. A thin, waxing, crescent moon will be between Saturn and Venus until 7:20 p.m.

Pluto is between Saturn and Venus, and is up until 6:17 p.m., but you'll need a powerful telescope to see it. Neptune's up until 11:34 p.m., and you have a better chance of seeing it with a telescope. Uranus is the best bet of these

three distant planets. Uranus will be visible all night, and with good binoculars you should be able to catch it. Its distinct blue-green colour is a treat worth looking for while Neptune is a darker cobalt.

The colour of Uranus and Neptune is similar but not identical. Uranus appears greener and Neptune bluer, so it's a great night to do comparisons.

Lastly, we'll have a few bonus objects. The Dwarf planet Eris will be up most of the night but just like with Pluto you'll need a powerful telescope to see it. M45, the Pleiades (Seven Sisters) is spectacular with or without binoculars, and is up all night. Lastly, the winter constellation of Orion will be hunting Taurus the bull while followed by his dog Sirius, the brightest star in the sky besides our own sun.

SKY WATCH

On Sunday, Dec. 11 after dusk, follow the moon and Pollux all

TODAY IN HISTORY

In AD 374, Ambrose, an early church father, was consecrated Bishop of Milan, Italy. His influential works on theology and ethics made him - along with Jerome, Augustine, and Gregory the Great - one of the "four doctors" of the Western (Latin) Church. In 1661, under pressure from the British Parliament, the American colony of Massachusetts suspended its Corporal Punishment Act of 1656, which had imposed harsh penalties on Quakers and other religious Nonconformists. In 1729, 1.2 million hectares including Norfolk, Wentworth and Haldimand counties of Ontario - were surrendered by the Mississauga Indians.

night and into the morning.

We have two mild meteor showers this month. The Geminid peaks the night of Dec. 13-14 in the constellation of Gemini. The Ursid shower peaks the morning of Thursday, Dec. 22 before sunrise when the Earth moves through the centre of the dust trail left behind by comet 8P/Tuttle.

The winter solstice arrives on Wednesday, Dec. 21. It's officially the shortest day of the year with eight hours, seven minutes and 16 seconds of daylight. This occurs when the sun reaches its most southerly declination of -23.5 degrees and likewise the North Pole is tilted 23.5 degrees away from the sun. Depending on the Gregorian calendar, the December solstice occurs annually on a day between Dec. 20 and Dec. 23. On this date, all places above a latitude of 66.5 degrees north are now in darkness, while locations below a latitude of 66.5 degrees south receive 24 hours of daylight.

On Thursday, Dec. 29 at dusk, look south-southwest as Venus and Mercury set into the horizon before 6 p.m.

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