TWO METEOR SHOWERS THIS MONTH



NEEL ROBERTS Sky's the Limit

SKY WATCH

On Sunday, Dec. 10 at dusk, look south-southwest before 4:30 p.m. and watch Venus and Saturn set into the horizon.

On Saturday, Dec. 28 at dusk look south-southwest before 4:30 p.m. and watch the moon and Venus set.

We have two mild meteor showers this month. The Geminid peaks on Friday, Dec. 13 just after midnight on a moonlit night in the constellation of Gemini. The Ursid shower peaks the morning of Sunday, Dec. 22 before sunrise, when the earth moves through the centre of the dust trail left behind by the comet 8P/Tuttle. Check out the International Meteor Organi-

zation at www.imo.net/calendar/2020 for more on all meteor showers next year.

The winter solstice arrives on Saturday, Dec. 21. It's officially the shortest day of the year with eight hours, seven minutes and 18 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 in darkness while locations below a latitude of 66.5 degrees south receive 24 hours of daylight.

PUBLIC EVENTS

There will be a presentation on faith and science by Dr. Stephen Jeans, developer and instructor of Ambrose University's Earth and Space Science courses, on Saturday, Dec. 14, from 6:30-10:30 p.m., at Calgary's Airhart Theatre, 150 Ambrose Circle SW.

Come for an evening of beautiful image presentations which begin to explain current findings about comets and other natural phenomena of our universe, including stars and novae that might have been the sign of the nativity. The presentation features about an hour of full-colour space images (mainly from ground-based astrophotographers and space-based NASA telescopes) and includes some analysis of biblical accounts to suggest how and what might have been the Christmas star.

The Calgary chapter of the Royal Astronomical Society of Canada will help point out the Geminids meteor shower and more. Got to for more information.

Merry Christmas and thanks for reading my column this year! Neel Roberts, a member of the Calgary chapter of the Royal Astronomical Society of Canada, welcomes your questions and comments at 403-560-6574 and Neel_Roberts@ ptccanada.com.