

# Looking at the planet Earth from afar

On Feb. 14, 1990, some of the most historic pictures were taken by the Voyager 1 spacecraft four billion miles from our planet. Launched in the summer of 1977 to initially explore the four outer gas giants Jupiter, Saturn, Uranus and Neptune, these unprecedented views showed a small pale blue dot uniquely positioned in a sun beam. Famous astronomer Carl Sagan remarked on that turn back view of Voyager 1 "everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every 'superstar,' every 'supreme leader,' every saint and sinner in the history of our species lived there—on a mote of dust suspended in a sunbeam."



**Neel Roberts**  
The Sky's the Limit

Sagan's description of the image is one of the most humbling pieces of prose ever written, and is one of my favourite passages of all time. This Christmas, if you are looking for that perfect something, especially if the person you're shopping for has everything, check out the Royal Astronomical Calendar ([www.rasc.ca/calendar/index.shtml](http://www.rasc.ca/calendar/index.shtml)) for less than \$25. While the images are breathtaking, don't be overwhelmed by them because Alberta Einstein summed it up well by saying, "I have deep faith that the principles of the universe will be just as simple as they are beautiful."

**Sky watch for the next month**

There will be a total lunar eclipse on Saturday starting at 4:30 a.m., peaking at 7:30 a.m. and ending at about 9:35 a.m. as it sets into the northwest horizon. While

the time is odd for most, there is more than an hour of blood red moon outside the peak time before and after 7:30 a.m.

A Christmas morning planet bonanza occurs just before sunrise on Dec. 25 in the southeast sky. There will be Mercury on the horizon, Saturn to the south (the bright one) and Mars southwest 35 degrees up. You might need the binoculars you got under the tree for Mercury.

Watch for the Geminid and Ursid meteor showers this month. We actually have two mild meteor showers this month, of which Geminid peaks Dec. 14 just after midnight and Ursid Dec. 22 after sundown when the Earth moves through the centre of the dust trail left behind by the comet. For more on all meteor showers, check out the International Meteor Organization at [www.imo.net/calendar/2011](http://www.imo.net/calendar/2011).

The winter solstice, which happens Dec. 21 at 10:30 p.m., is officially the shortest day of the year. The solstice occurs when the sun reaches its most southerly declination of -23.5 degrees and when 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.

## Public events for the next month

Join us at 5 a.m. (yes that's in the morning when you're still asleep) on Saturday, Dec. 10 for the monthly public stargazing at the Tourism and Trek Station and check out the total lunar eclipse. The peak is at about 7:30 a.m. and we'll be there until it sets just after sunrise. Treats and refreshments are provided free of charge and all are welcome. For more information, contact the Trek Station at 403-485-2994, or visit the website [www.vulcantourism.com](http://www.vulcantourism.com).

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