

## AUGUST 1 2008 - RARE SOLAR ECLIPSE VISIBLE FROM NUNAVUT

**WHAT WILL HAPPEN?** From selected areas in Nunavut, the Sun will disappear in the early morning hours as the Moon completely covers the Sun. Morning will turn into a brief and temporary night. From the rest of Nunavut, the Sun will be partially covered enough that the morning light will dim noticeably around mid-eclipse.

**WHERE WILL IT HAPPEN?** The zone of spectacular “total eclipse” extends in a narrow path from east of Cambridge Bay over eastern Victoria Island, then north over Princes of Wales, Somerset, Devon and Ellesmere islands. Most of Nunavut experiences a less spectacular partial eclipse, also visible from parts of Québec and Atlantic Canada. However, in Canada, only Nunavut can see the total eclipse.

**WHEN WILL IT HAPPEN?** The eclipse occurs in the early morning hours of Friday, August 1, 2008. From Ovayok (Mount Pelly) the eclipse begins before sunrise (2:53 AM MDT). At mid-eclipse (3:24AM) 99.95% of the Sun will be covered by the Moon. The eclipse will end at 4:15 AM. From 3 kilometres SE of the tip of Ovayok down on Long Lake, the eclipse will be total (100% of the Sun covered) for about 17 seconds starting at approximately 3:23 AM.

**WHY DOES IT HAPPEN?** An eclipse of the Sun occurs when the Moon comes between us (the Earth) and the Sun. A solar eclipse can only occur at New Moon. Solar eclipses are visible only from a limited area on the Earth.

**HOW SPECIAL IS THIS EVENT?** On average, any one location on Earth can expect to see a total solar eclipse only once every 300 to 400 years. The last total solar eclipse visible from Canada was on February 26, 1979. The next total solar eclipse over Canada is not until April 8, 2024.

The last partial solar eclipse visible from Canada was May 31, 2003 (visible from NWT and Nunavut). The next partial eclipse visible from Canada is June 1, 2011, an event again best seen from Nunavut, and also Russia, Alaska and Greenland.



### TOTAL ECLIPSE OF THE SUN

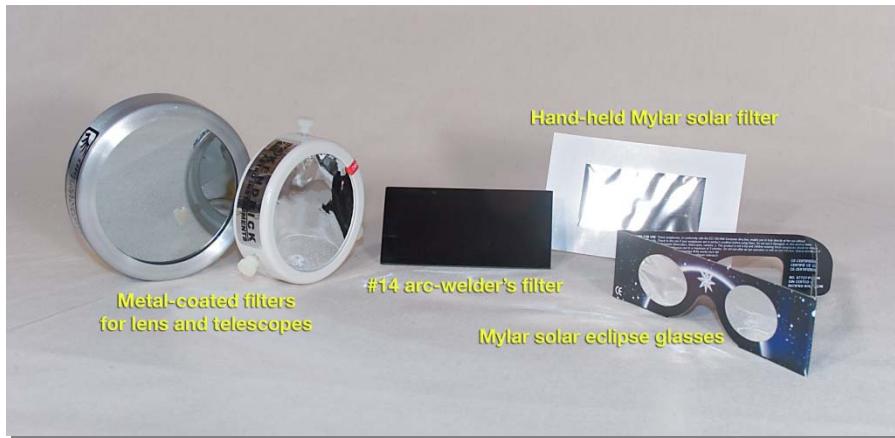
This photo was taken in February 1979 from Manitoba by Alan Dyer. Because the moon is directly in front of the sun for this very brief time, parts of the sun's outer atmosphere are seen.

For additional information, including maps: <http://skyriver.ca/eclipse.htm>

## PRACTICE SAFE SUN

**WHY IS THERE A PROBLEM?** A solar eclipse can be a dangerous thing, because it gives people a reason to stare at the sun, and staring at the sun is never a good idea. To avoid permanent eye damage, you need to look at the sun only through a special filter or by projection. (Photos courtesy skynews.ca)

**FILTER:** Eclipse glasses made of special aluminized Mylar and sold by astronomy dealers are proven safe. A #14 arc-welder's filter is also safe.



**PROJECTION:** This is an easy alternative. Take a piece of cardboard 20 to 30 cm across and cut a hole in it a few centimetres wide in the middle. Tape some aluminum foil over the hole and pierce the foil with a sharp pin. Hold this cardboard between the sun and a white sheet of paper or a light coloured wall; position your pinhole projector about half a metre from the wall. You will see a small bright image of the sun on the wall or paper.



Just to be clear — You look at the image projected *by* the pinhole; don't look *through* the pinhole itself. The only time the Sun is safe to look at directly without any filter is during the brief moments of totality, *if* you should be so fortunate as to stand in the narrow path. In all other cases, use a filter!