

# THE SKY THIS MONTH

JANUARY 2008

## PLANET MARS: A WHOLE OTHER WORLD

Looking to the east in January's evening sky, you will see something bright, red and ancient. This amazing object is Mars, the fourth planet from the Sun and a whole other world in many ways!

The planet Mars orbits the Sun every 1.88 years, nearly twice the Earth's orbit period. Its diameter is 6800 kilometres, just over one half of Earth's diameter.



The comparative sizes of Earth, Mars and our Moon. Mars is about one half Earth's diameter, while our Moon is about one half Mars' diameter.

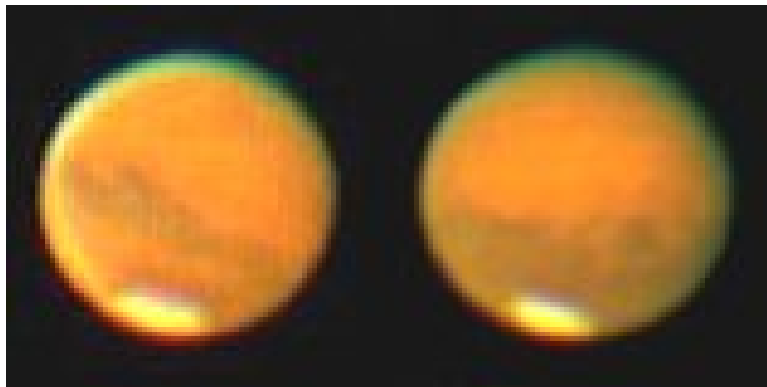
Mars' day is 24.6 hours long, 14 hours longer than Earth's day. On average, it is 225 million kilometres away from the Sun; about 1.5 times of Earth's distance from the Sun. In January, Mars will be about 100 million kilometres from us; about 260 times the distance to the Moon.

Mars is distinctively reddish (even blood red) in colour. In Roman mythology, Mars was the God of War and is seen holding a spear and a shield. The sign for the planet Mars symbolizes just that.



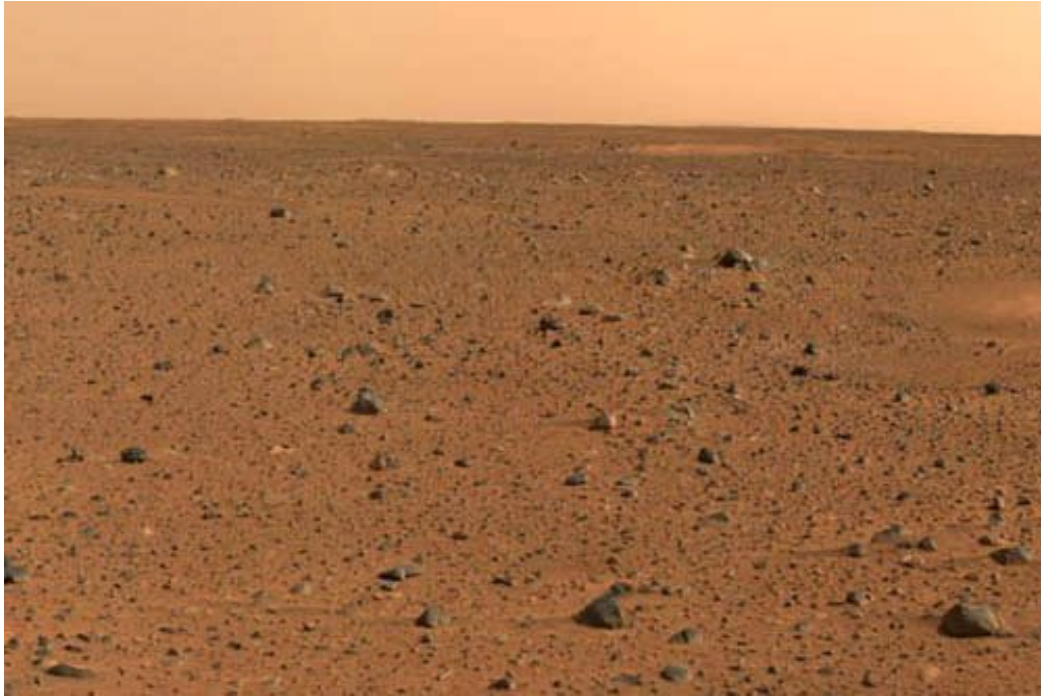
The sign of the planet Mars.

Through the telescope, Mars is a stunning world with features of red, grey and white in the form of polar ice caps. The northern and southern ice caps grow and shrink alternately corresponding to the season.



Two faces of the planet Mars. The southern polar cap can be clearly seen, indicating summer in Mars' northern hemisphere. Images by the author; August 2003.

Mars is a rocky, barren and lifeless world which at one time held liquid water and (possibly) microscopic life forms.



The surface and sky of Mars as seen by the Spirit rover. Courtesy NASA / JPL



The Earth and the Moon viewed from Mars. Courtesy NASA / JPL

Mars' surface contains the Viking 1 and Viking 2 landers, the Sojourner lander, the now inactive Pathfinder rover and two active rovers (Spirit and Opportunity) taking regular images and sampling Mars' surface since January 2004.

Throughout January, Mars will be the brightest object in the early evening sky, with the exception of the Moon. When you view Mars in your evening sky, think about the mystique surrounding this world over the years. Think about the triumphs (and failures) humanity has achieved attempting to unlock its secrets. That point of light will most likely be the next important milestone of humanity's ventures into space.

### **THE SKY LAST MONTH – DECEMBER 2007**



Comet Holmes continued to grace our skies in December. CCD image by the author; December 10, 2007.

### **THE SKY NEXT MONTH – FEBRUARY 2008**

#### **VIEWING FEBRUARY'S TOTAL LUNAR ECLIPSE**

## **ASTRONOMY EDUCATION**

The Mill of Kintail Conservation Area will be holding an astronomy course consisting of ten weekly classes beginning Friday, March 28, 2008. For more information, including scheduling, location, curriculum and enrollment, visit [www.castor2.ca/course](http://www.castor2.ca/course).

To view past issues of "The Sky This Month" please see [www.castor2.ca/skythismonth](http://www.castor2.ca/skythismonth).

Questions, comments, observations and/or images can be sent to [skythismonth@castor2.ca](mailto:skythismonth@castor2.ca).