

Heavenly happy face

A lunar and planetary conjunction



It may not have been the 'Star of Bethlehem'; on 1 December 2008, however, this spectacular, apparently close grouping of the waxing crescent Moon and the two brightest planets, Venus and Jupiter, in the early evening sky, created an unprecedented level of interest throughout the world. Seen from the Southern Hemisphere, the grouping had the appearance of a 'smiley' face. The event received extensive coverage, with the smiley image appearing in newspapers and as the local television news weather photo on ABC1.

The popular website Spaceweather.com quoted: 'In the 10-year history of Spaceweather.com, no single event has generated more photos than this one. Submissions have poured in from six continents, dozens of countries, kingdoms, democracies, theocracies, ships, planes, cars and even from a military aircraft refueling at 35,000 feet over Iraq. We're building a gallery to display a selection of the best shots.' (The incredible range of images displayed is well worth seeing.)

During the months leading up to this rare celestial event, Venus and Jupiter were visible in the western evening skies, widely separated but gradually appearing to get nearer to each other as they headed for this close conjunction with the Moon. Although the Moon and planets did appear to the naked eye as being very near each other, within a two-degree circle, they were in fact at very great distances from Earth.

WRITER AND
PHOTOGRAPHER

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ABOVE RIGHT
The 'happy face'
formed by the
Moon, Venus,
left, and Jupiter

RIGHT
Jupiter with its
moons, from
bottom, Callisto,
Europa and Io



The distances from the Earth to the Moon and these two planets on 1 December 2008 were as follows:

Moon	0.0027 AU	0.4 million km
Venus	1.005 AU	151 million km
Jupiter	5.807 AU	870 million km

1 AU is a unit of measurement called an 'astronomical unit' – the distance from the Earth to the Sun (approx. 150 million km).

For Northern Hemisphere observers the view was different: due to positional changes during the time difference, they saw a 'frowny' face, with the Moon above the planets, which did not have quite the same visual impact. **40**

Further information

www.astro Tasmania.com-a.googlepages.com/home

2009 has been declared by UNESCO as the International Year of Astronomy. It marks the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei. Throughout the year there will be activities and events to encourage interest in astronomy.