

SOUTH AFRICAN ASTRONOMICAL OBSERVATORY

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What's Up - September 2025

Moon



Full Moon

7 September 2025 20:09



Last Quarter

14 September 2025 12:33



New Moon

21 September 2025 21:54



The moon is at perigee (closest to Earth) on 10/09 at 14:09, at a distance of 364 781 km. It is at apogee (furthest from Earth) on 26/09 at 11:46, at a distance of 405 552 km.

Planets



Mercury (in Virgo) ↑ 06:57 ↓ 18:45



Venus (in Leo) ↑ 05:34 ↓ 16:23 Near the Moon on 19/09



Mars (in Virgo) ↑ 08:13 ↓ 21:11 Near the Moon on 24/09



Jupiter (in Gemini)

↑ 03:36 ↓ 13:36

Near the Moon on 16/09 and 17/09



Saturn (in Pisces)

↑ 18:57 ↓ 07:15

Near the Moon on 08/09 and 09/09

All the details (apart from the proximity to the Moon) are for mid-month in Cape Town.

More information



Scan the QR code for more information about the South African Astronomical Observatory (SAAO) and for details about visiting the SAAO in Cape Town or Sutherland.

Some bright stars in the evening sky

Altair: white star, brightest star in Aquila Antares: red supergiant in Scorpius

Arcturus: red giant in Boötes

Canopus: yellowish-white star in Carina

Rigel: blue supergiant in Orion Spica: bluish-white star in Virgo

The Pointers: Alpha and Beta Centauri

Meteor showers

There are no major meteor showers this month.

Equinox

The spring equinox occurs on 22 September 2025 at 20:19.

Total lunar eclipse

The total lunar eclipse on 7 September 2025 is visible from across South Africa, weather permitting. The Moon starts entering the penumbra at 17:28 (at which time it is still below the horizon). Totality begins at 19:30 and ends at 20:53. By 22:55 the Moon has left the penumbra again.

Fun facts

A lunar eclipse occurs when the Sun, Earth and Moon are aligned in a line, with the Moon moving through Earth's shadow. While direct sunlight is blocked during totality, sunlight refracted in Earth's atmosphere still reaches the Moon and gives it a reddish colour. Contrary to solar eclipses, lunar eclipses are a celestial marvel you can observe without the need of any eye protection.

Aristarchus of Samoa (c. 310 - c. 230 BC) used the time it takes the Moon to enter Earth's shadow and the time it remains in the shadow to estimate the size of the Moon and its distance. He is also the first known person to have proposed a heliocentric model, i.e. that the Earth is moving around the Sun. It would take more than 1500 years before this became the accepted model for the solar system in the era of Copernicus, Kepler and Galilei.