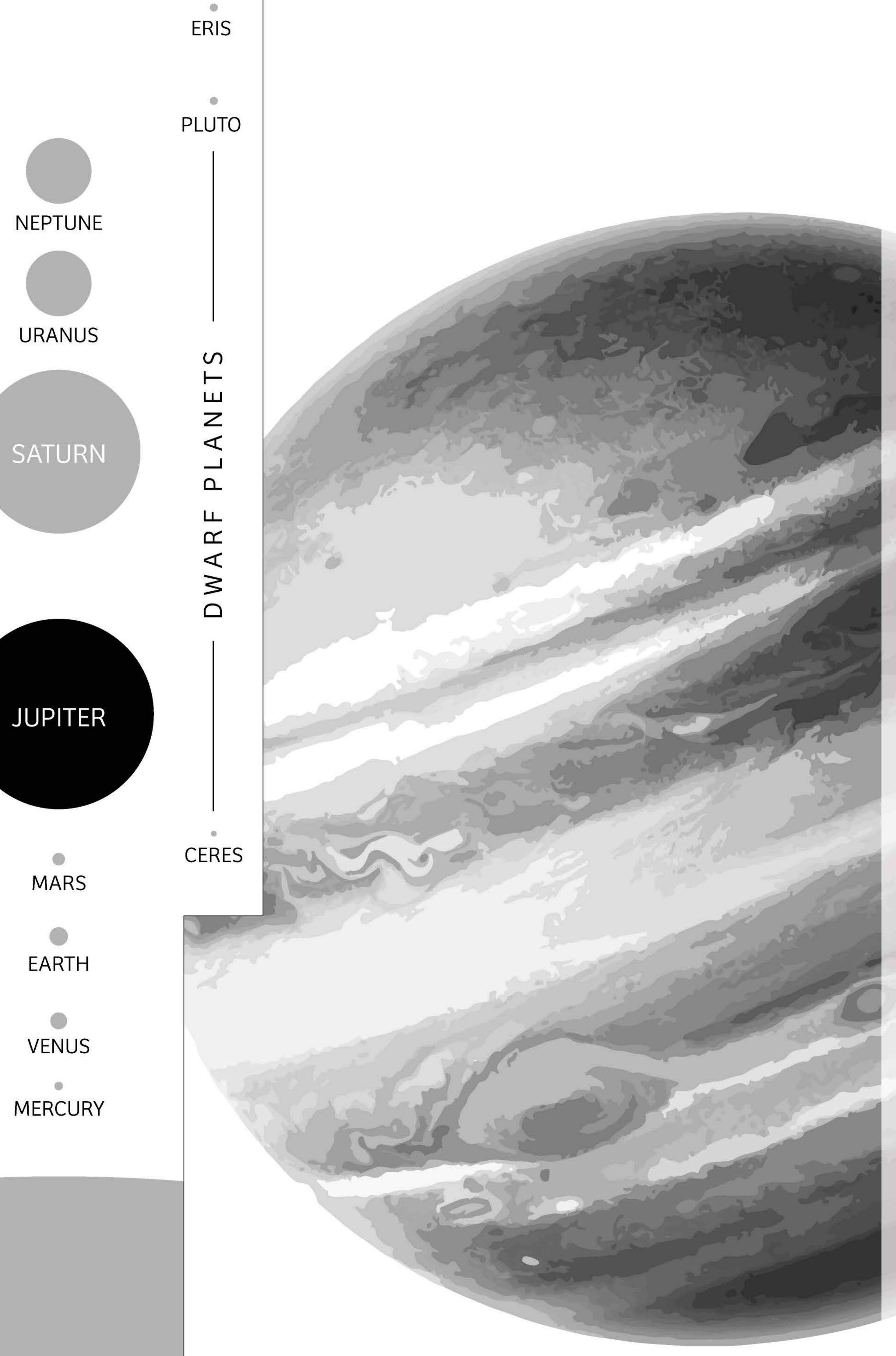


JUPITER: THE FIFTH PLANET FROM THE SUN: A GAS GIANT



Jupiter is the largest planet in the solar system and one of the four 'gas giants' - planets which do not have solid surfaces. Its thick atmosphere is composed of hydrogen and helium together with small quantities of methane and ammonia. It surrounds a rocky core about five times the mass of Earth.

The banded patterns are created by strong winds stirring the clouds in the atmosphere. The Great Red Spot is a storm big enough to swallow two Earths, and is thought to have lasted for over a million years.

Like all gas giants, Jupiter is surrounded by a large number of moons. The four principal moons (Io, Europa, Ganymede and Callisto) were discovered by Galileo in 1610 soon after the invention of the telescope. Their discovery was a major factor in the acceptance of Copernicus' sun-centred theory of the solar system. The shadow of Europa can be seen on the lower left side of this image.

JUPITER STATISTICS

Diameter: 143,000 km (11.2 x Earth)

Mass: 318 x Earth

Mean distance from Sun: 5.20 AU* (778 million km)

Orbital period (sidereal**): 11.86 Earth years

Rotational period: 9 hrs 55 mins

Moons: 62 or more

Rings: yes (radius 100,000-210,000 km)
Inclination of equator to orbit: 3 degrees
Composition: 75% hydrogen, 25% helium,
traces of water, methane and ammonia

SUN

FASCINATING FACT: Jupiter has rings! The faint rings around Jupiter were the third set of rings discovered in the solar system, after Saturn (of course) and Uranus.

^{*} One Astronomical Unit (AU) = mean distance of the Earth from the Sun.

^{**} Sidereal time is time kept with respect to distant stars.