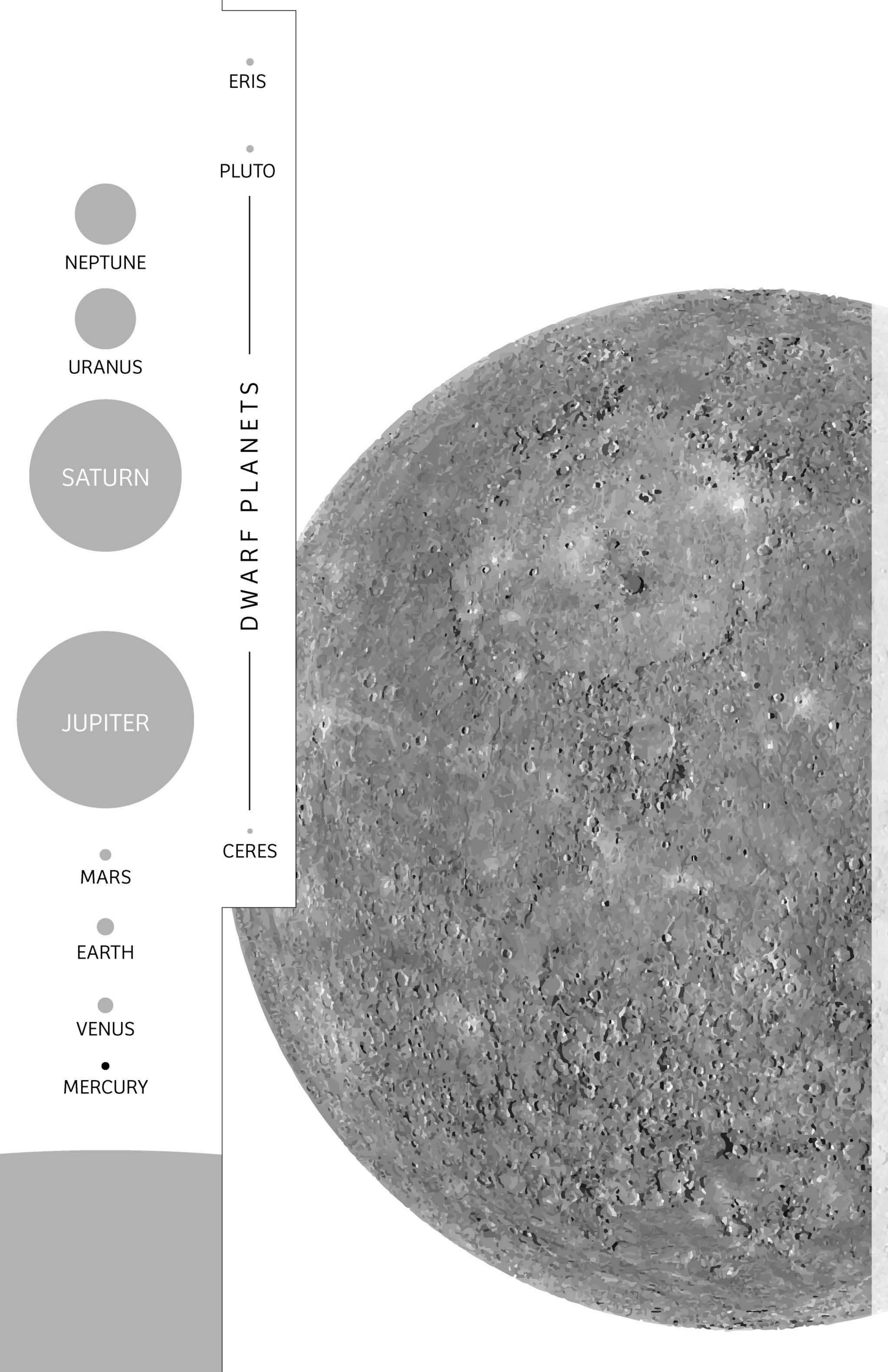


SUN

MERCURY: THE CLOSEST PLANET TO THE SUN: A ROCKY (TERRESTRIAL) PLANET



FASCINATING FACT: Mercury is smaller than the moons Ganymede (Jupiter) and Titan (Saturn) and is only 40% larger than Earth's Moon.

Mercury is the closest planet to the Sun and orbits the Sun speedily in just 88 days. It rotates very slowly, once every 59 days or only 3 times during 2 orbits around the Sun. To an observer on the surface, a sunrise occurs only once every 176 Earth days. This produces the most extreme variation in temperature on all the planets, from about 90 K on the dark side to 700 K on the sunlit side.

It is also the smallest planet in the solar system - smaller than the largest moons of Jupiter and Saturn. Its surface is heavily cratered and it has no moons. Mercury has a very thin atmosphere, consisting of atoms blasted off its surface by the solar wind. Because Mercury is so hot and has little gravity, these atoms quickly escape into space. Mercury is thought to be made of heavy metals, and is one of the densest planets, second only to Earth. Even though it is closer to the Sun than Venus, it is not the hottest planet. Venus, being covered in thick cloud, can hold onto heat much better and reaches higher temperatures than Mercury.

The correct prediction of Mercury's motion was an important confirmation of Einstein's General Theory of Relativity. Because of its proximity to the Sun, it is difficult to send probes to study Mercury. Mariner 10 in 1974 and MESSENGER in 2004 both visited Mercury.

MERCURY STATISTICS

Diameter: 4,878 km (0.382 x Earth)

Mass: 0.06 x Earth

Mean distance from the Sun: 0.39 AU*

(85 million km)

Orbital period (sidereal**): 88.0 Earth days

Rotational period: 58.6 Earth days

Moons: 0

Inclination of equator to orbit: 0 degrees

(thus no seasons)

Composition: 70% iron, 30% silicates and a little nickel

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

** Sidereal time is time kept with respect to distant stars.