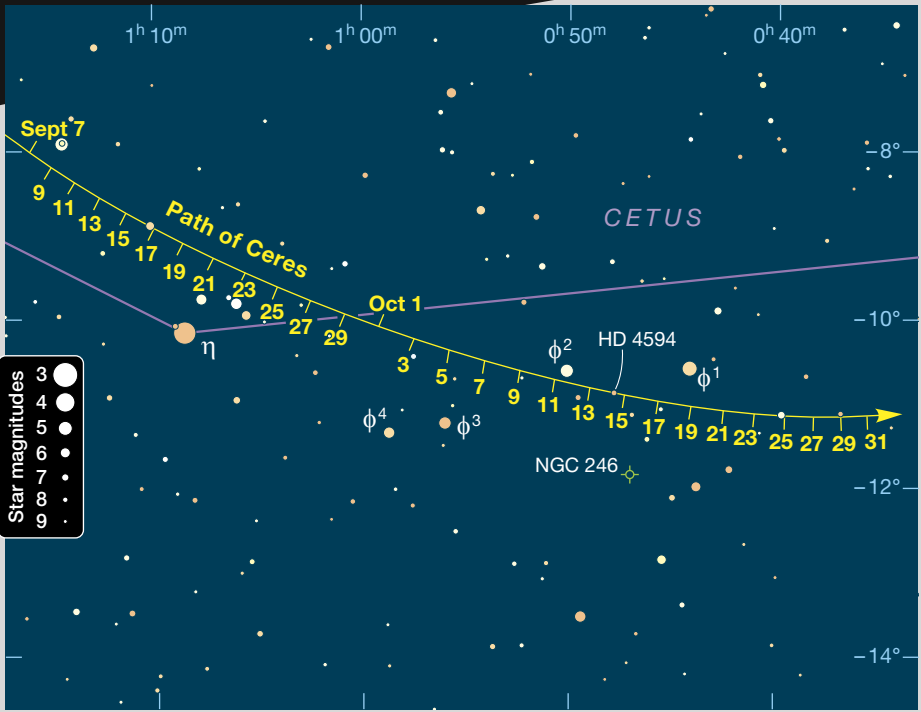
Courtesy of SKY & TELESCOPE



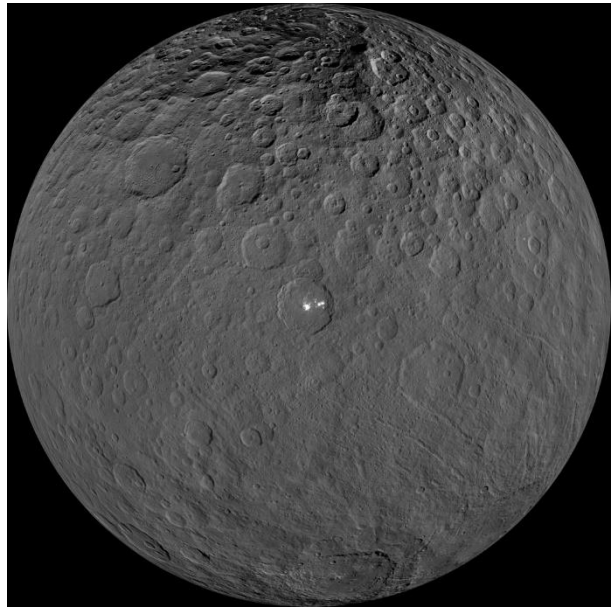
Ceres at Opposition

CERES IS SPECIAL. It's the closest dwarf planet and the only one that resides within the main asteroid belt. It shines at magnitude 7.6 when it reaches opposition on October 2nd.

This month Ceres drifts westward across Cetus, the Sea Monster, where it passes south of the 5th-magnitude stars Phi^1 (φ^1) and Phi^2 (φ^2) Ceti. Both aid in finding Ceres. On the night of the 13th, it closes in on the 7.7-magnitude star HD 4594. Ceres glides 2½″ south of the star at around 5:40 a.m. EDT on the morning of the 14th. Continue to page 2.

More About Ceres -- October 2025

from the folks at the Astronomy Club of Asheville



NASA Dawn Mission image of Ceres

Rising at dusk and setting at dawn, Ceres is visible all night during the beginning of October 2025. Located in the constellation Cetus (the Whale), Ceres is positioned about 182 million miles (or 16 light-minutes) away from Earth at "opposition" this month.

Ceres was the first asteroid discovered -- by Italian astronomer Giuseppe Piazzi on January 1,1801 in Palermo, Sicily, using a telescope. It was initially classified as a "planet"! But in 1852, after the discovery of numerous other asteroids, Ceres was "demoted" to the status of asteroid. Sound familiar? Think Pluto and the Kuiper Belt, and its demotion to "dwarf planet" in 2006!

Ceres is the largest object in the asteroid belt that lies between the orbits of Mars and Jupiter, and it is the only object in the asteroid belt large enough to make itself "round". In 2006 Ceres was designated as a "dwarf planet" – the same solar system status as Pluto.

Ceres is named after the Roman goddess of agriculture. The word "cereal" also derives from this deity. It has a diameter of 940 kilometers, which is about a quarter the size of the Moon. When you think of how many millions of asteroids there are, it's remarkable that Ceres alone accounts for 25% of the asteroid belt's total mass. Its stupendous bulk is a big part of its "dwarf planet" status. To qualify as a dwarf planet, an object must orbit the Sun directly, be massive enough for self-gravity to shape it into a sphere, yet not so massive that it dominates its region of space, thus clearing it of other small bodies. Ceres checks all these boxes.***