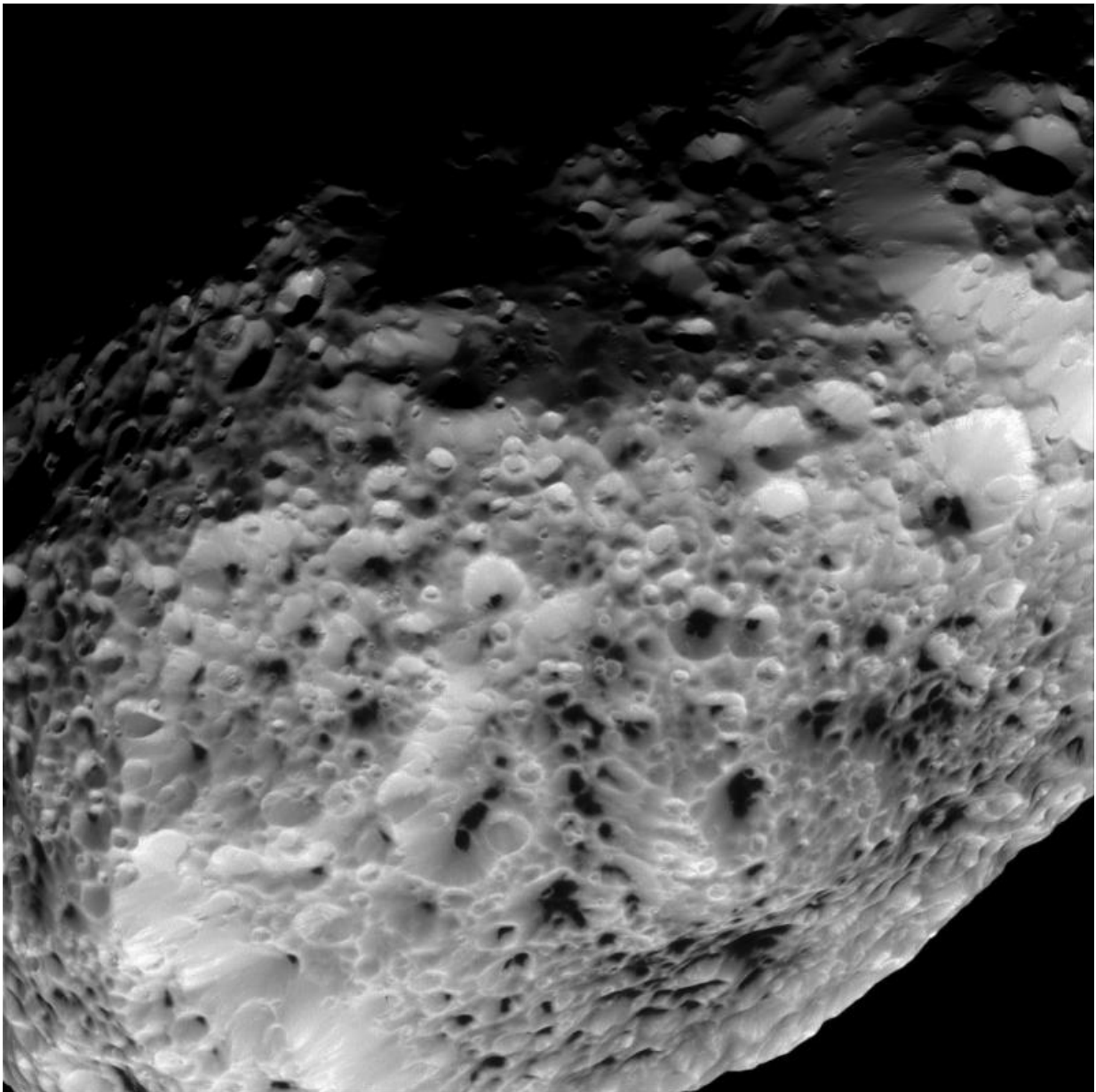


# Cassini sends final close views of odd moon Hyperion

June 3 2015

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NASA's Cassini imaging scientists processed this view of Saturn's moon Hyperion, taken during a close flyby on May 31, 2015. This flyby marks the mission's final close approach to Saturn's largest irregularly shaped moon. North on Hyperion is up and rotated 34 degrees to the left. The image was taken in visible light with the Cassini spacecraft narrow-angle camera on May 31, 2015. The view was acquired at a distance of approximately 24,000 miles (38,000 kilometers) from Hyperion and at a Sun-Hyperion-spacecraft, or phase, angle of 46 degrees. Image scale is 145 feet (44 meters) per pixel. Credit: NASA/JPL-Caltech/Space Science Institute

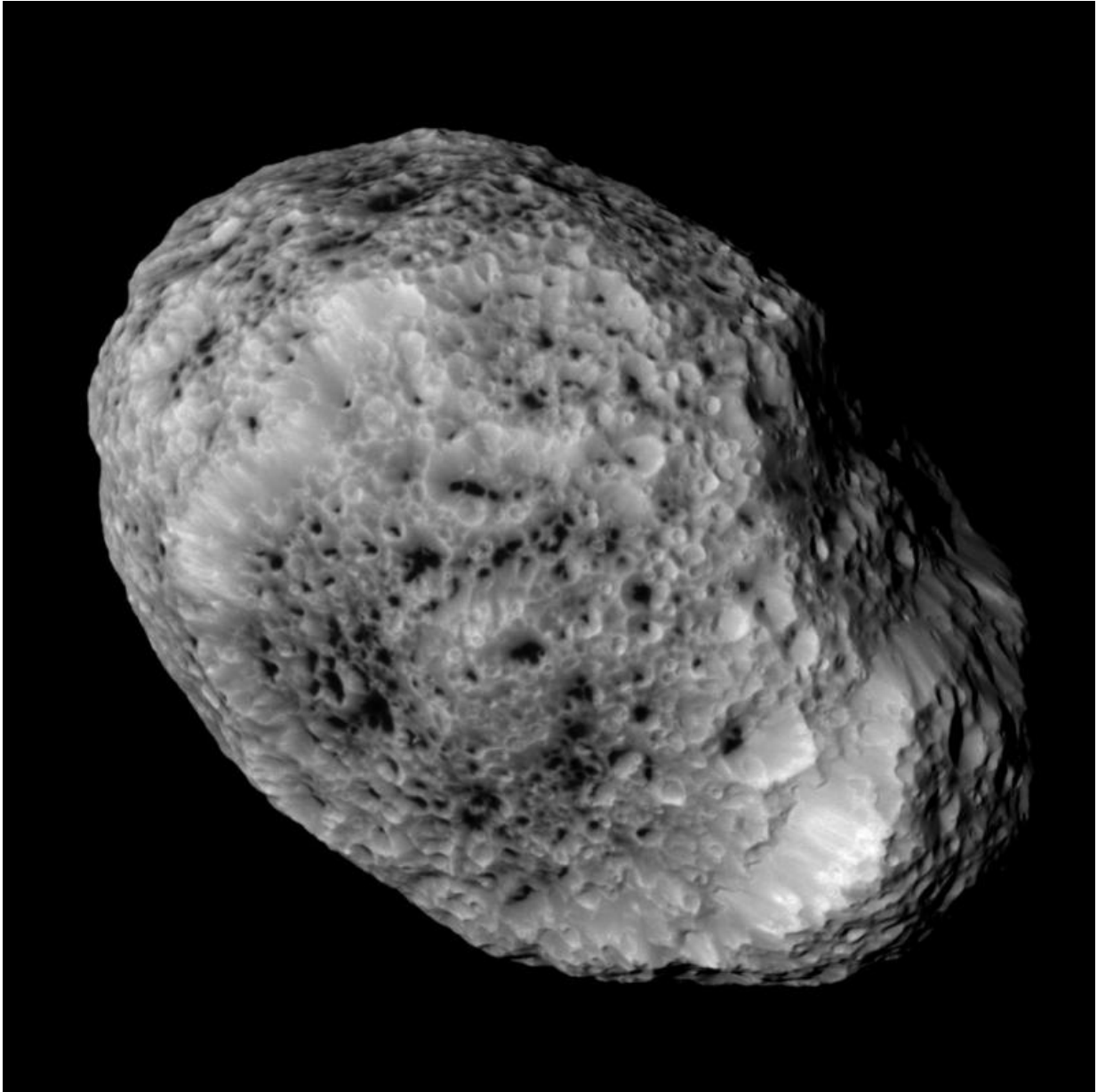
NASA's Cassini spacecraft has returned images from its final close approach to Saturn's oddball moon Hyperion, upholding the moon's reputation as one of the most bizarre objects in the solar system. The views show Hyperion's deeply impact-scarred surface, with many craters displaying dark material on their floors.

Raw, unprocessed images from the May 31 flyby are available via the Cassini mission [website](#).

During this flyby, Cassini passed Hyperion at a distance of about 21,000 miles (34,000 kilometers) at closest approach. Cassini's closest-ever Hyperion flyby took place on Sept. 26, 2005, at a distance of 314 miles (505 kilometers).

Hyperion is the largest of Saturn's irregular, or potato-shaped, moons and may be the remnant of a violent collision that shattered a larger object into pieces. Cassini scientists attribute Hyperion's peculiar, sponge-like appearance to the fact that it has an unusually low density for such a large object—about half that of water. Its [low density](#) indicates Hyperion is quite porous, with weak surface gravity. These characteristics mean impactors tend to compress the surface, rather than excavating it, and most material that is blown off the surface never

returns.



NASA's Cassini imaging scientists processed this view of Saturn's moon Hyperion, taken during a close flyby on May 31, 2015. This flyby marks the mission's final close approach to Saturn's largest irregularly shaped moon. North on Hyperion is up and rotated 37 degrees to the right. The image was taken with the Cassini spacecraft narrow-angle camera on May 31, 2015 using a spectral

filter which preferentially admits wavelengths of near-infrared light centered at 862 nanometers. The view was acquired at a distance of approximately 37,000 miles (60,000 kilometers) from Hyperion and at a Sun-Hyperion-spacecraft, or phase, angle of 20 degrees. Image scale is 1180 feet (360 meters) per pixel.

Credit: NASA/JPL-Caltech/Space Science Institute

Cassini will make several more close flybys of Saturn's moons this year before departing the planet's equatorial plane to begin a year-long setup of the mission's daring final act. For its grand finale, set for 2017, Cassini will repeatedly dive through the space between Saturn and its rings.

**More information:** For more information about Cassini, visit:  
[www.nasa.gov/cassini](http://www.nasa.gov/cassini)

Provided by Jet Propulsion Laboratory

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