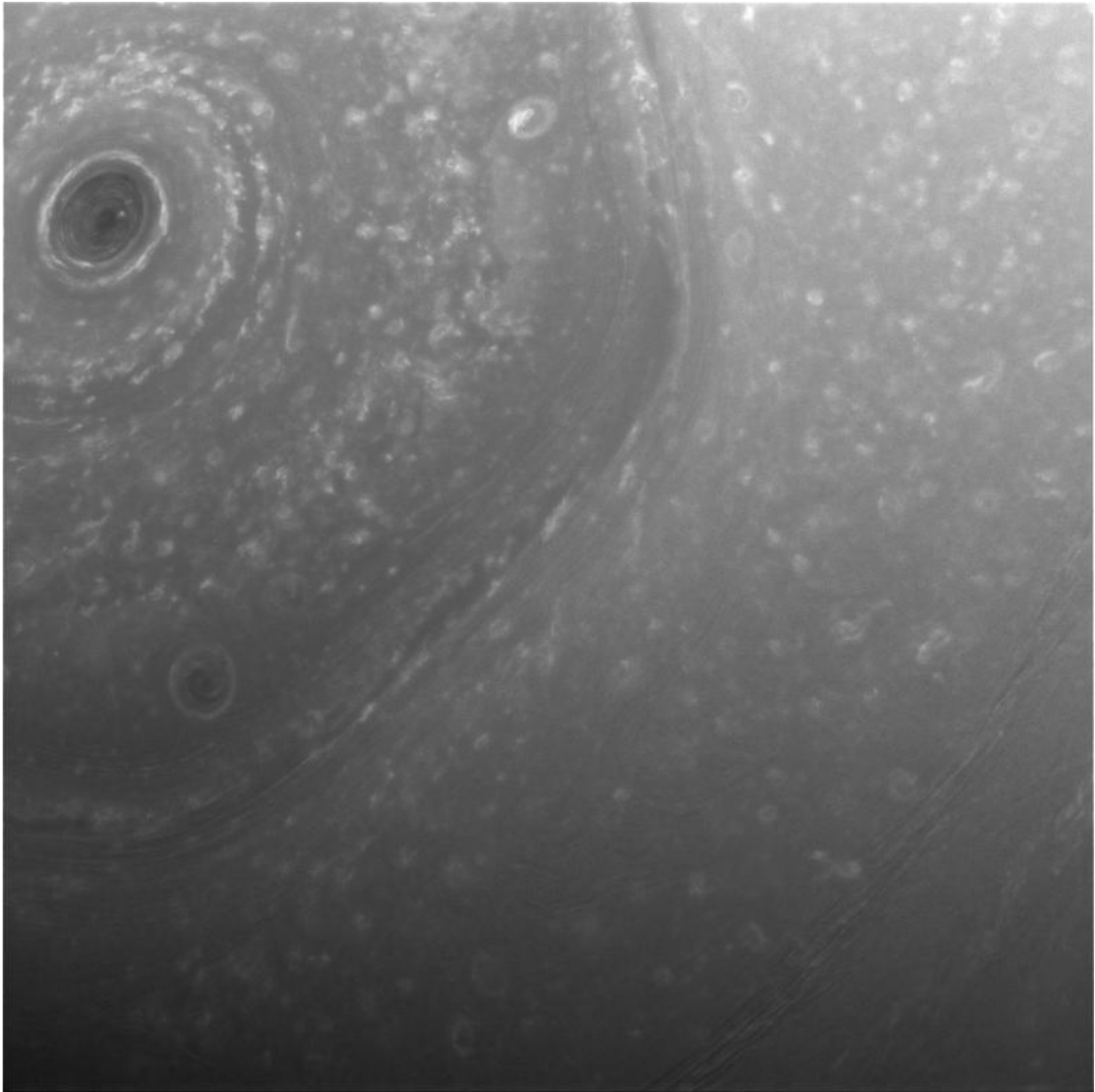


Cassini transmits first images from new orbit

December 7 2016



This view from NASA's Cassini spacecraft was obtained about half a day before

its first close pass by the outer edges of Saturn's main rings during its penultimate mission phase. Credit: NASA/JPL-Caltech/Space Science Institute

NASA's Cassini spacecraft has sent to Earth its first views of Saturn's atmosphere since beginning the latest phase of its mission. The new images show scenes from high above Saturn's northern hemisphere, including the planet's intriguing hexagon-shaped jet stream.

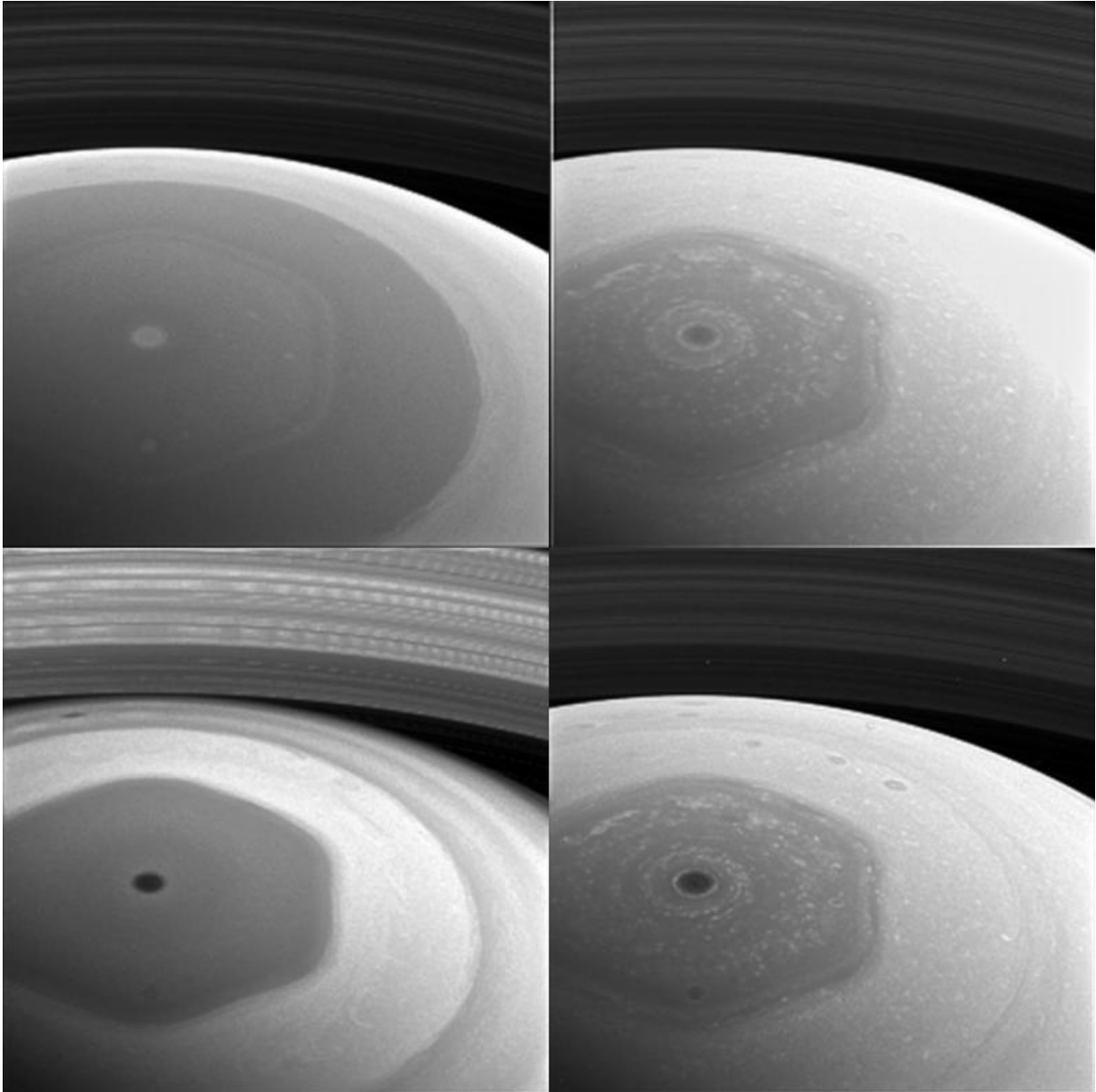
Cassini began its new mission phase, called its Ring-Grazing Orbits, on Nov. 30. Each of these weeklong orbits—20 in all—carries the spacecraft high above Saturn's [northern hemisphere](#) before sending it skimming past the outer edges of the planet's main rings.

Cassini's imaging cameras acquired these latest views on Dec. 2 and 3, about two days before the first ring-grazing approach to the planet. Future passes will include images from near closest approach, including some of the closest-ever views of the outer rings and small moons that orbit there.

"This is it, the beginning of the end of our historic exploration of Saturn. Let these images—and those to come—remind you that we've lived a bold and daring adventure around the solar system's most magnificent planet," said Carolyn Porco, Cassini imaging team lead at Space Science Institute, Boulder, Colorado.

The next pass by the rings' outer edges is planned for Dec. 11. The ring-grazing orbits will continue until April 22, when the last close flyby of Saturn's moon Titan will once again reshape Cassini's flight path. With that encounter, Cassini will begin its Grand Finale, leaping over the rings and making the first of 22 plunges through the 1,500-mile-wide (2,400-kilometer) gap between Saturn and its innermost ring on April

26.



This collage of images from NASA's Cassini spacecraft shows Saturn's northern hemisphere and rings as viewed with four different spectral filters. Credit: NASA/JPL-Caltech/Space Science Institute

On Sept. 15, the mission's planned conclusion will be a final dive into Saturn's atmosphere. During its plunge, Cassini will transmit data about the atmosphere's composition until its signal is lost.

Launched in 1997, Cassini has been touring the Saturn system since arriving in 2004 for an up-close study of the planet, its rings and moons. Cassini has made numerous dramatic discoveries, including a global ocean with indications of hydrothermal activity within the moon Enceladus, and liquid methane seas on another moon, Titan.

More information: For details about Cassini's ring-grazing orbits, visit saturn.jpl.nasa.gov/news/2966/ring-grazing-orbits

Provided by NASA

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