

# Cassini to dip into Enceladus spray again

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NASA's Cassini spacecraft will make a close approach to the south polar region of Saturn's moon Enceladus on April 14, 2012. Credit: NASA/JPL-Caltech

(Phys.org) -- Less than three weeks after its last visit to the Saturnian moon Enceladus, NASA's Cassini spacecraft returns for an encore. At closest approach on April 14, the spacecraft will be just as low over the moon's south polar region as it was on March 27 -- 46 miles, or 74 kilometers.

Like the last, this latest flyby is mainly designed for Cassini's ion and neutral mass spectrometer, which will "taste" the particles in the curious jets spraying from the moon's [south polar region](#). Combined with the

March 27 flyby and a similar flyby on Oct. 1, 2011, this close encounter will provide a sense of the jets' three-dimensional structure and help determine how much they change over time.

On Cassini's outbound leg, the spacecraft will pass by another Saturnian moon, Tethys, at a distance of about 6,000 miles (9,000 kilometers). The [composite infrared spectrometer](#) will look for patterns in Tethys' thermal signature. Other instruments will study the moon's composition and geology. The imaging cameras are expected to obtain new views of Enceladus and Tethys.

The Cassini-Huygens mission is a cooperative project of NASA, the European Space Agency and the Italian Space Agency. NASA's Jet Propulsion Laboratory, a division of the California Institute of Technology in Pasadena, manages the mission for NASA's Science Mission Directorate in Washington. The [Cassini orbiter](#) and its two onboard cameras were designed, developed and assembled at JPL.

**More information:** For more information about the Cassini-Huygens mission visit: [www.nasa.gov/cassini](http://www.nasa.gov/cassini) and [saturn.jpl.nasa.gov/](http://saturn.jpl.nasa.gov/) .

Provided by JPL/NASA

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