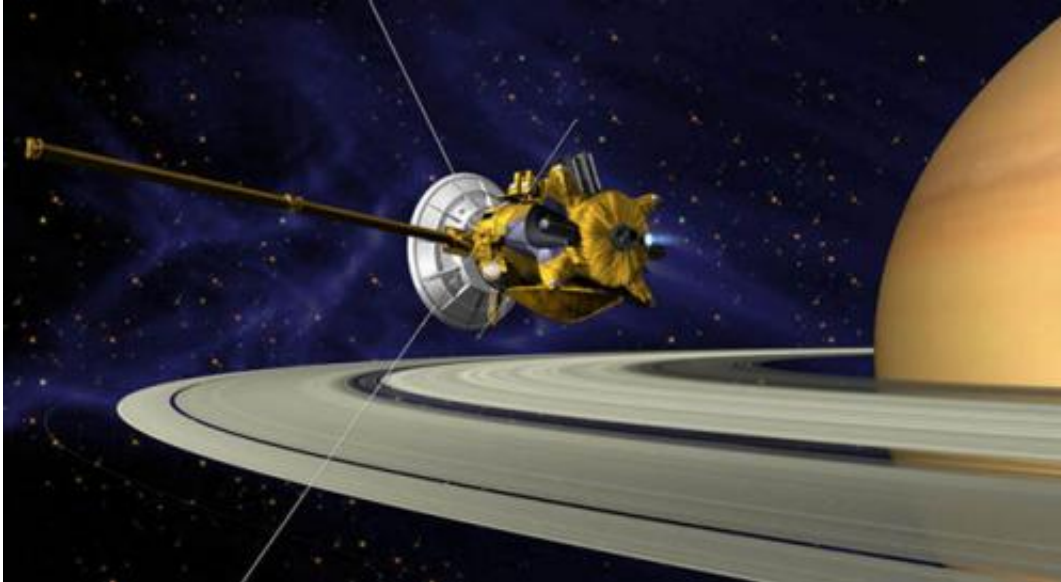


# Cassini plasma spectrometer turns off

June 7 2012, By Priscilla Vega and Jia-Rui Cook

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Artist concept of Cassini spacecraft. Credit: NASA/JPL

(Phys.org) -- The Cassini plasma spectrometer instrument (CAPS) aboard NASA's Cassini spacecraft was turned off between Friday, June 1 and Saturday, June 2, when a circuit breaker tripped off after the instrument experienced some unexpected voltage shifts.

Engineers are currently investigating this issue, which they believe is due to short circuits in the instrument. In June 2011, the instrument was turned off because of similar problems, but was switched on again in March 2012 once investigators determined that tin plating on electronic components had grown "whiskers" large enough to contact another

conducting surface and carry electrical current, resulting in a voltage shift. At that time, it was believed that these "whiskers" were not capable of carrying sufficient current to cause any damage, and the voltage shifts didn't have any effect on normal [spacecraft operations](#) because the power subsystem is designed to operate in the presence of such shifts.

The cause is still under investigation, but engineers will be looking into this issue over the next few months.

Cassini launched in 1997 and has been exploring the Saturn system since 2004. The project completed its original prime mission in 2008 and has been extended twice. Cassini is now in its solstice mission, which will enable scientists to observe [seasonal change](#) in the Saturn system through the northern [summer solstice](#).??

The Cassini-Huygens mission is a cooperative project of NASA, the [European Space Agency](#) and the Italian Space Agency. The Jet Propulsion Laboratory, a division of the California Institute of Technology in Pasadena, manages the mission for NASA's Science Mission Directorate, Washington.

**More information:** More details about whiskers on the CAPS instrument can be found here:

[www.jpl.nasa.gov/news/news.cfm?release=2012-078](http://www.jpl.nasa.gov/news/news.cfm?release=2012-078) .

Provided by JPL/NASA

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