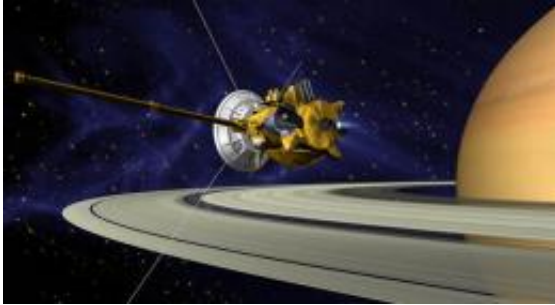


# Cassini to resume nominal operations

November 10 2010, By Jia-Rui C. Cook

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Artist's concept of NASA's Cassini spacecraft at Saturn. Image credit: NASA/JPL-Caltech

Engineers at NASA's Jet Propulsion Laboratory, Pasadena, Calif., expect the Cassini spacecraft will resume normal operations on Nov. 24. They have traced the steps taken by an onboard computer before Cassini put itself in precautionary "safe mode" last week.

Mission managers determined that the spacecraft went into [safe mode](#) because of a flip of a bit in the command and data [system computer](#). The bit flip prevented the computer from registering an important instruction, and the spacecraft, as programmed, went into the standby mode. Engineers are still working to understand why the bit flipped.

Since the spacecraft went into safe mode on Nov. 2, the onboard computer with the bit flip has been reset and one of the [science instruments](#) has been turned back on to keep it warm. Over the next week or so, engineers will bring the rest of the science instruments back

online.

Playback from the computer's memory is enabling engineers to extract science data collected before the spacecraft entered safe mode. The flow of science data is expected to resume when the instruments are powered back on next week.

"The bit flip happened in exactly the wrong location -- almost any place else would have merely resulted in a rejected command -- but the spacecraft responded exactly as programmed," said Bob Mitchell, Cassini program manager at JPL. "Cassini is in excellent shape, and we are looking forward to the next seven years of this mission."

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, D.C.

**More information:** [www.nasa.gov/cassini](http://www.nasa.gov/cassini)

Provided by JPL/NASA

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