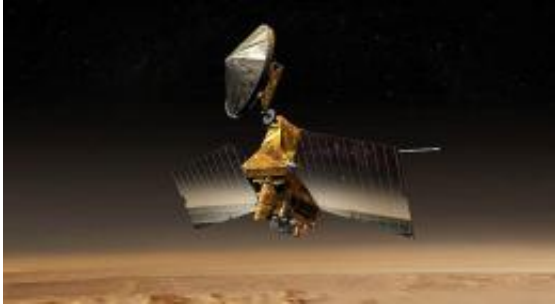# Mars Orbiter Puts Itself in Safe Mode Again

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Artist concept of Mars Reconnaissance Orbiter. Image credit: NASA/JPL

(PhysOrg.com) -- NASA's Mars Reconnaissance Orbiter put itself into a safe mode Wednesday morning, Aug. 26, for the fourth time this year, while maintaining spacecraft health and communications. While in safe mode, the spacecraft has limited activities pending further instructions from ground controllers.

Engineers have begun the process of diagnosing the problem prior to restoring the orbiter to normal science operations, a process expected to take several days. They will watch for engineering data from the spacecraft that might aid in identifying the cause of event and possibly of previous ones. The orbiter spontaneously rebooted its computer Wednesday, as it did in February and June, but did not switch to a redundant computer, as it did in early August.

To help in investigating a root cause of the three previous anomalies,

engineers had programmed the spacecraft to frequently record engineering data onto non-volatile memory. That could give an improved record of spacecraft events leading up to the reboot.

"We hope to gain a better understanding of what is triggering these events and then have the spacecraft safely resume its study of Mars by next week," said Mars Reconnaissance Orbiter Project Manager Jim Erickson of NASA's Jet Propulsion Laboratory, Pasadena, Calif.

The spacecraft has been investigating Mars with six science instruments since it reached that planet in 2006. It has returned more data than all other current and past Mars missions combined.

Provided by JPL/NASA (news : web)

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