Mars Reconnaissance Orbiter Spacecraft Out of Safe Mode

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

(PhysOrg.com) -- NASA's Mars Reconnaissance Orbiter today has been taken out of the precautionary 'safe mode' it had been in since August.

Taking the spacecraft out of safe mode is the latest step in a series of commands that are being sent to the orbiter this week. Engineers plan to resume science operations once they conclude a check of all the science instruments. Normal science operations may resume next week.

The mission flight team successfully uploaded new software last week that provided a patch to prevent the orbiter from an unlikely scenario of back-to-back computer resets that could potentially jeopardize the mission.

"The patient is out of danger but more steps have to be taken to get it

back on its feet," said Mars Reconnaissance Orbiter Project Manager Jim Erickson of NASA's Jet Propulsion Laboratory, Pasadena, Calif.

The flight team began an uplink of some preventive-care files on Monday, Nov. 30, as part of a multi-step process preparing the orbiter to resume its observations of Mars. The spacecraft went into a minimum-activity safe mode on Aug. 26 when it spontaneously reset its onboard computer for the fourth time this year. The orbiter had resumed normal operations within a few days after each of the earlier resets: Feb. 23, June 4 and Aug. 6. After the Aug. 26 event, the team chose to keep the spacecraft in safe mode while investigating possible causes and ramifications of the series of resets.

The Mars Reconnaissance Orbiter spacecraft has been studying Mars with an advanced set of instruments since 2006. It has returned more data about the planet than all other past and current missions to Mars combined.

Provided by JPL/NASA (news : web)

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