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NASA's metric confusion caused Mars orbiter loss

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(CNN) -- NASA lost a $125 million Mars orbiter because one engineering team used metric units while another used English units for a key spacecraft operation, according to a review finding released Thursday.
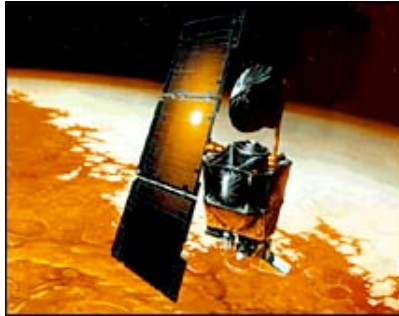
NASA's Climate Orbiter was lost September 23, 1999

For that reason, information failed to transfer between the Mars Climate Orbiter spacecraft team at Lockheed Martin in Colorado and the mission navigation team in California. Lockheed Martin built the spacecraft.

"People sometimes make errors," said Edward Weiler, NASA's Associate Administrator for Space Science in a written statement.

"The problem here was not the error, it was the failure of NASA's systems engineering, and the checks and balances in our processes to detect the error. That's why we lost the spacecraft."

The findings of an internal peer review panel at NASA's Jet Propulsion Laboratory showed that the failed information transfer scrambled commands for maneuvering the spacecraft to place it in orbit around Mars. JPL oversaw the Climate Orbiter mission.

"Our inability to recognize and correct this simple error has had major implications," said JPL Director Edward Stone.

The spacecraft completed a nearly 10-month journey to Mars before it was lost on September 23.

The navigation mishap pushed the spacecraft dangerously close to the planet's atmosphere where it presumably burned and broke into pieces,

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killing the mission on a day when engineers had expected to celebrate the craft's entry into Mars' orbit.

Climate Orbiter was to relay data from an upcoming mission called Mars Polar Lander, set to set down on Mars in December. Now that mission will relay its data via its own radio and another orbiter.

Both Mars Surveyor spacecraft were designed to help scientists understand Mars' water history and the potential for life in the planet's past. There is strong evidence that Mars was once awash with water, but scientists have no clear answers to where the water went and what drove it away.

NASA has convened three panels to look into what led to the loss of the orbiter, including the internal peer review panel that released the Thursday finding.

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