

Metric mishap caused loss of NASA orbiter

Climate Orbiter and Polar Lander were designed to help scientists understand Mars water history and the potential for life in the planets 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 two panels to look into what led to the loss of the orbiter, including the internal peer review panel that released the Thursday finding. NASA also plans to form a third board an independent review panel to look into the accident.

Metric system used by NASA for many years

A NASA document came out several years ago, when the Cassini mission to Saturn was under development, establishing the metric system for all units of measurement, Gavin said.

The metric system is used for the Polar Lander mission, as well as upcoming missions to Mars, he said.

That review panels findings now are being studied by a second group a special review board headed up by John Casani, which will search for the processes that failed to find the metric to English mismatch. Casani retired from JPL two months ago from the position of chief engineer for the Lab.

Were going to look at how was the data transferred, Gavin said. How did it originally get into system in English units How was it transferred When we were doing navigation and Doppler distance and speed checks, how come we didnt find it

People make errors, Gavin said. The problem here was not the error. It was the failure of us to look at it endtoend and find it. Its unfair to rely on any one person.

Lockheed Martin, which failed to immediately return a telephone call for comment, is building orbiters and landers for future Mars missions, including one set to launch in 2001 and a mission that will return some Mars rocks to Earth a few years down the line.

It also has helped with the Polar Lander mission, set to land on Mars on December 3 and conduct a 90-day mission studying martian weather. It also is designed to extend a robotic arm that will dig into the nearby martian soil and search for signs of water.

NASA managers have said the Polar Lander mission will go on as planned and return answers to the same scientific questions originally planned even though the lander will have to relay its data to Earth without help from Climate Orbiter.

Error points to nations conversion lag

Lorelle Young, president of the U.S. Metric Association, said the loss of Climate Orbiter brings up the untenable position of the United States in relation to most other countries, which rely on the metric system for measurement. She was not surprised at the error that arose.

In this day and age when the metric system is the measurement language of all sophisticated science, two measurements systems should not be used, Young said.

Only the metric system should be used because that is the system science uses, she said.

She put blame at the feet of Congress that she said has squeezed NASA's budget to the point that it has no funds to completely convert its operations to metric.

This should be a loud wakeup call to Congress that being first in technology requires funding, she said, and it's a very important area for the country.

