NASA's Mars Odyssey orbiter watches comet fly near

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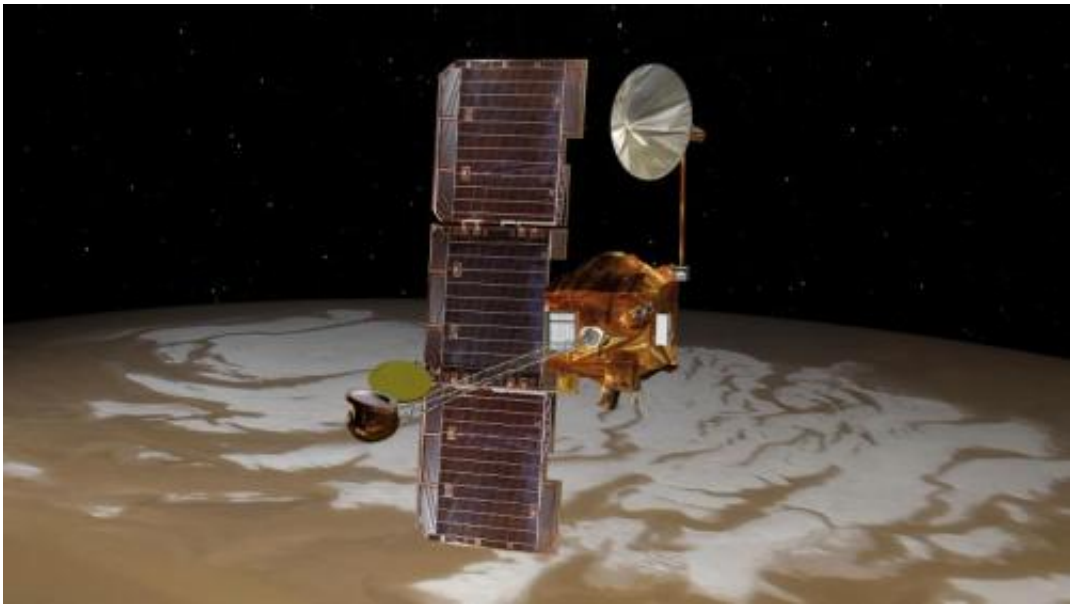

Artist's concept of NASA's Mars Odyssey spacecraft. Credit: NASA/JPL-Caltech

The longest-lived robot ever sent to Mars came through its latest challenge in good health, reporting home on schedule after sheltering behind Mars from possible comet dust.

NASA's Mars Odyssey was out of communications with Earth, as planned, while conducting observations of comet C/2013 A1 Siding Spring on Sunday, Oct. 19, as the comet flew near Mars. The comet sped

within about 88,000 miles (139,500 kilometers) of Mars, equivalent to about one-third of the distance between Earth and Earth's moon. Odyssey had performed a maneuver on Aug. 5 to adjust the timing of its orbit so that it would be shielded by Mars itself during the minutes, around 1 p.m. PDT (4 p.m. EDT) today, when computer modeling projected a slight risk from high-velocity dust particles in the comet's tail.

"The telemetry received from Odyssey this afternoon confirms not only that the spacecraft is in fine health but also that it conducted the planned observations of comet Siding Spring within hours of the comet's closest approach to Mars," said Odyssey Mission Manager Chris Potts of NASA's Jet Propulsion Laboratory, Pasadena, Calif., speaking from mission operations center at Lockheed Martin Space Systems, Denver.

Comet Siding Spring observations were made by the orbiter's Thermal Emission Imaging System (THEMIS). Resulting images are expected in coming days after the data is downlinked to Earth and processed. THEMIS is also scheduled to record a combined image of the comet and a portion of Mars later this week. In addition, the Odyssey mission is using the spacecraft's Neutron Spectrometer and High Energy Neutron detector to assess possible effects on Mars' atmosphere of dust and gas from the comet.

Three NASA Mars orbiters, two Mars rovers and other assets on Earth and in space are studying comet Siding Spring. This comet is making its first visit this close to the sun from the outer solar system's Oort Cloud, so the concerted campaign of observations may yield fresh clues to our solar system's earliest days more than 4 billion years ago.

Following the comet flyby, operations teams have also confirmed the good health of NASA's Mars Reconnaissance Orbiter and of NASA's Mars Atmosphere and Volatile EvolutioN (MAVEN) orbiter.

Mars Odyssey has worked at the Red Planet longer than any other Mars mission in history. NASA launched the spacecraft on April 7, 2001, and Odyssey arrived at Mars Oct. 24, 2001. Besides conducting its own scientific observations, the mission provides a communication relay for robots on the Martian surface.

Provided by Jet Propulsion Laboratory