

Phoenix Mars Lander Out Of Communication

October 30 2008



This view combines more than 400 images taken during the first several weeks after NASA's Phoenix Mars Lander arrived on an arctic plain at 68.22 degrees north latitude, 234.25 degrees east longitude on Mars.

(PhysOrg.com) -- NASA'S Phoenix Mars Lander, with its solar-electric power shrinking due to shorter daylight hours and a dust storm, did not respond to an orbiter's attempt to communicate with it Wednesday night and Thursday morning.

Mission controllers judge the most likely situation to be that declining power has triggered a pre-set precautionary behavior of waking up for only about two hours per day to listen for an orbiter's hailing signal. If that is the case, the wake-sleep cycling would have begun at an unknown time when batteries became depleted.

"We will be coordinating with the orbiter teams to hail Phoenix as often

as feasible to catch the time when it can respond," said Phoenix Project Manager Barry Goldstein at NASA's Jet Propulsion Laboratory, Pasadena, Calif. "If we can reestablish communication, we can begin to get the spacecraft back in condition to resume science. In the best case, if weather cooperates, that would take the better part of a week."

The Phoenix lander has operated at a Martian arctic site for more than two months longer than its initially planned, three-month prime mission. The sun stayed above the horizon around the clock during the prime mission, but is now below the horizon for about 7 hours each night.

Engineers at JPL and at Lockheed Martin Space Systems, Denver, operate Phoenix and the two NASA orbiters used for relaying communications with the lander, Mars Reconnaissance Orbiter and Mars Odyssey.

Provided by JPL, NASA

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