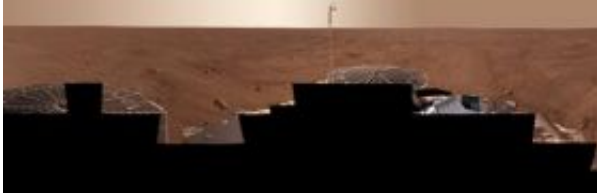


NASA listens for silent Mars lander

January 17 2010, By ALICIA CHANG , AP Science Writer



This partial view of a full-circle panorama shows NASA's Mars Phoenix Lander and the polygonal patterning of the ground at the landing area. The image is in approximately true color. Image credit: NASA/JPL-Caltech/University Arizona/Texas A&M University

(AP) -- Will Phoenix rise from the dead? Don't bet on it.

Despite the odds, [NASA](#) on Monday will begin a three-day effort to listen for signs of life from the [Phoenix lander](#), presumed frozen to death near Mars' north pole after spending five months digging into soil and ice.

"We have no expectations that Phoenix has survived the winter, but we certainly want to have a look," said Chad Edwards, chief telecommunications engineer at NASA's Jet Propulsion Laboratory.

The plan calls for the orbiting [Mars Odyssey spacecraft](#) to make regular passes over the Phoenix landing site and listen for a beep. If the three-legged, solar-powered lander fails to phone home as expected, NASA will hail it again next month when the sun is higher on the horizon.

Phoenix landed in May 2008 and spent five months digging trenches and conducting science experiments in the arctic plains. It confirmed the presence of ice and became the first spacecraft to touch and taste water on another planet. It last communicated with Earth in November 2008 as sunlight waned and temperatures dipped.

The lander was not designed to withstand extreme Martian winters where temperatures average minus 195 degrees Fahrenheit, far chillier than Earth's all-time coldest temperature - minus 129 degrees - recorded in Antarctica in 1983.

Since seasons on Mars last twice as long as Earth's, scientists waited until Martian spring was underway in the northern latitudes to check on Phoenix, which has been blanketed in carbon dioxide frost.

In the unlikely chance the lander wakes up, it has been programmed with a "Lazarus mode" to signal that it is alive.

"It's such a low probability," admitted mission scientist Ray Arvidson of Washington University in St. Louis.

It's doubtful Phoenix's [solar panels](#) can capture enough sunlight to charge its batteries. Even if it miraculously re-energizes itself, there's no guarantee its science instruments and other electronics will still work, researchers say.

Phoenix was named for the mythical bird that rose from its own ashes since the mission was pieced together with hardware and instruments intended for canceled projects. This time, though, it may prove too tough to live up to the namesake.

More information: Phoenix mission:
<http://phoenix.lpl.arizona.edu/index.php>

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