

No word from stuck NASA Mars rover Spirit

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Artist's concept of a NASA Mars Exploration Rover. Image credit: NASA/JPL/Cornell University

The odometer on the Mars rover Spirit has been stuck at 4.8 miles for more than 1 1/2 years and has been incommunicado since March.

This double dose of bad luck hangs over the scrappy spacecraft, which marks its seventh year on [Mars](#) on Monday.

[NASA](#) doesn't know if the Spirit is dead or alive, but it's diligently listening for any peep as the rover remains mired in a sand trap.

"There's a realistic possibility that Spirit may never wake up again," said Dave Lavery, Mars rovers program executive at NASA headquarters.

A pair of Mars orbiters has been making daily overhead passes listening for a signal from Spirit, which became stuck in April 2009 while driving backward. After several attempts to free it were unsuccessful, Spirit got

new instructions to conduct science observations while mired in the sand.

It suddenly stopped talking with Earth last March and is presumed to be in [hibernation](#) to conserve power. During this deep sleep, communications and other activities are suspended so that energy can go to heating and battery recharging.

Spirit is designed to try to wake up when its battery gets enough charge. Scientists are disappointed with its silence, but are holding out hope it will spring back to life.

"I'm not ready to say goodbye yet," said mission chief scientist Steve Squyres of Cornell University. "That moment will come someday, but now is not the time."

With each passing day on Mars, the sun gets higher in the sky, increasing the amount of sunlight reaching Spirit's [solar panels](#). The sun will be at its highest point in mid-March. After that, the chances of hearing from Spirit dwindle.

If Spirit doesn't radio back by March, it's "probably not going to," Lavery said.

Lavery said the mission will continue to listen after March, but will scale back the daily passes.

Originally designed to roam around opposite ends of Mars for three months, Spirit and its twin, Opportunity, have lived long past their warranty. Spirit landed on the [red planet](#) on Jan. 3, 2004, followed by Opportunity three weeks later. Both have uncovered geologic evidence of ancient water on the planet.

Opportunity so far has logged 16.4 miles and shows no signs of stopping. It recently drove to a 300-foot-diameter crater where it will spend several months exploring before moving on to its eventual destination, Endeavour crater.

Meanwhile, scientists can only reminisce about Spirit's past hijinks.

"If that adventure is truly over, it will be a shame, but it will also have been a rover's life well-lived," said astronomer Jim Bell of Arizona State University.

More information: Mars rovers site:
<http://marsrovers.jpl.nasa.gov/home>

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