

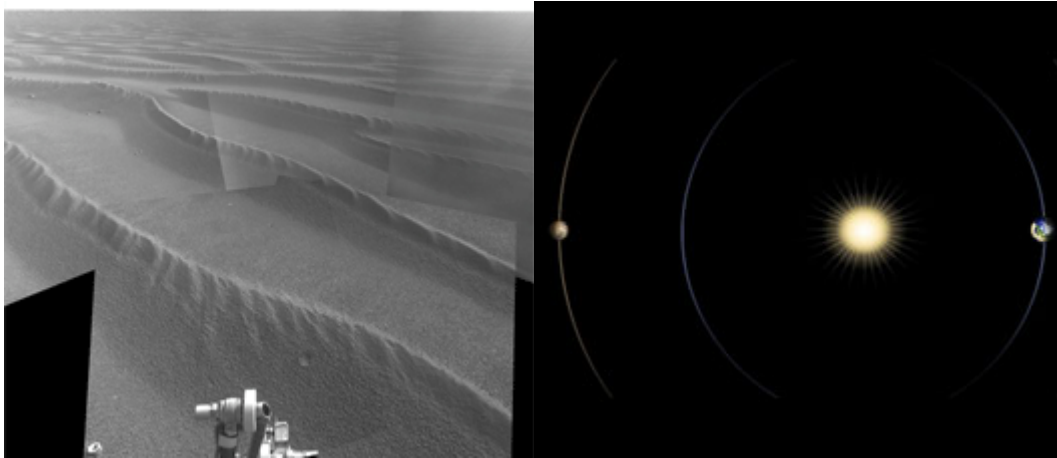
# Mars rover mission reaches 5th anniversary

Published - Jan 03 2009 01:49PM EST | AP

Five years after the NASA rover Spirit landed on Mars, the six-wheel robotic geologist and its twin Opportunity are still on the job.

Expectations were far lower when Spirit made a bouncing landing in a cocoon of air bags on Jan. 3, 2004, followed 21 days later by Opportunity: The goal was to try to operate each solar-powered rover for at least three months.

"That's an extraordinary return of investment in these challenging budgetary times," Ed Weiler, associate administrator for NASA's Science Mission Directorate, said in a December statement.



Combined, the rovers have made more than 13 miles of tracks on Mars' dusty surface and sent a quarter-million images back to Earth. Their instruments have uncovered evidence that Mars was once a far wetter and warmer place than the frigid, dusty world it is now.

An accumulation of dust on the rovers' electricity-generating solar panels was expected to be one of the most likely causes of their eventual deaths, but wind has occasionally cleaned the panels.

Spirit, however, has an 18-month buildup of dust and its panels were barely able to provide sufficient power during Mars' just-ended southern hemisphere winter. At one point it failed to receive commands, and its status fell to "serious but stable" condition.

The winter was a "squeaker" for Spirit, John Callas, the rover project manager at Jet Propulsion Laboratory in Pasadena, said in the NASA statement. "We just made it through," he said. Mission managers are pressing ahead with plans for more exploration even though NASA says either rover could fail without warning.

Spirit has begun stirring after sitting immobile for most of the autumn and winter, JPL spokesman Guy Webster said Saturday. Plans are being made to drive it about 200 yards to a pair of sites that have drawn interest Opportunity, which is closer to the equator and has cleaner solar panels, has been driving toward a 14-mile-diameter crater, stopping on the way to examine interesting rocks.