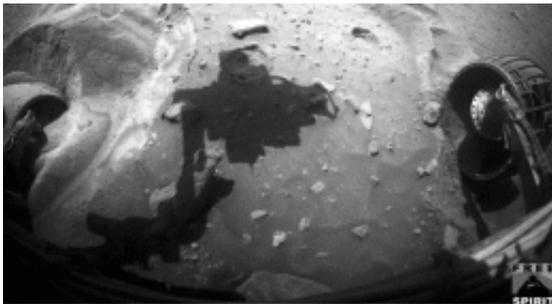


Rover Spirit: Another Stall of Right-Rear Wheel Ends Drive

December 2 2009



This blink comparison aids evaluation of a drive by NASA's Mars Exploration Rover Spirit during the rover's 2,099th Martian day, or sol (Nov. 28, 2009).
Image Credit: NASA/JPL-Caltech

(PhysOrg.com) -- Spirit's right-rear wheel stalled again on Sol 2099 (Nov. 28, 2009) during the first step of a two-step extrication maneuver.

This stall is different in some characteristics from the stall on [Sol 2092](#) (Nov. 21). The Sol 2099 stall occurred more quickly and the inferred rotor resistance was elevated at the end of the stall. Investigation of past stall events along with these characteristics suggest that this stall might not be result of the terrain, but might be internal to the right-rear [wheel](#) actuator. Rover project engineers are developing a series of diagnostics to explore the actuator health and to isolate potential terrain interactions. These diagnostics are not likely to be ready before Wednesday.

Plans for future driving will depend on the results of the diagnostic tests.

Before the Sol 2099 drive ended, Spirit completed 1.4 meters of wheel spin and the rover's center moved 0.5 millimeters (0.02 inch) forward, 0.25 millimeters (0.01 inch) to the left and 0.5 millimeters (0.02 inch) downward. Since Spirit began extrication on Sol 2088, the rover has performed 9.5 meters (31 feet) of wheel spin and the rover's center, in total, has moved 16 millimeters (0.63 inch) forward, 10 millimeters (0.39 inch) to the left and 5 millimeters (0.20 inch) downward.

Provided by JPL/NASA ([news](#) : [web](#))

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