

Spirit Rover: Just a Few More Approaches to Try for Extrication

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An artist's concept portrays a NASA Mars Exploration Rover on the surface of Mars. Image credit: NASA/JPL/Cornell University

(PhysOrg.com) -- The list of remaining maneuvers being considered for extricating Spirit is becoming shorter.

Results are being analyzed Wednesday, Jan. 13, from a drive on Sol 2143 (Jan. 12, 2010) using intentionally very slow rotation of the wheels. Earlier drives in the past two weeks using wheel wiggles and slow wheel rotation produced only negligible progress toward extricating Spirit.

The right-front wheel has not rotated usefully since Sol 2117 (Dec. 16, 2009). With the right-rear wheel also inoperable since Sol 2099 (Nov. 28, 2009), Spirit now drives with only four wheels.

Pending results of the latest drive, the rover team is developing plans for



their final few attempts, such as driving backwards and using Spirit's robotic arm to sculpt the ground directly in front of the left-front wheel, the only working wheel the arm can reach. Such activities may take several sols to implement, but time is getting short as winter approaches and the team needs to focus on Spirit's winter survival.

The amount of energy that Spirit has each day is declining as autumn days shorten on southern Mars. If <u>NASA</u> does determine that the rover will not be able to get away from its current location, some maneuvers to improve the tilt toward the winter sun might be attempted.

Provided by JPL/NASA

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