Planned Rover Test to Run a Week or More

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A test setup at NASA's Jet Propulsion Laboratory enables experiments with maneuvers being considered for use by NASA's Mars Exploration Rover Spirit to get Spirit out of soft soil where it has become embedded.

(PhysOrg.com) -- Mars rover team members are planning a long-duration experiment with the test rover at JPL beginning next week. This test will check whether favorable motion seen in earlier tests can be sustained to gain as much distance in the sandbox as Spirit would need to complete on Mars to escape its predicament.

The team expects to drive the test rover for several hundred meters, or yards, worth of wheel rotations over the course of a week or more without starting over. Steering direction will be changed several times during the run. Earlier tests have run for one or two days. In between tests, the team resets the sandbox to simulate Spirit's current starting position at the Mars location called "Troy."

Based on test results, the team might begin sending driving commands to

Spirit during the second week of September. Any progress by Spirit toward getting out of the soft soil where it is embedded is expected to be slow. With its right front wheel disabled since 2006, Spirit's success at getting out of the sand trap is not guaranteed. Both Spirit and Opportunity have operated on Mars more than five years longer than their initially planned missions of three months.

During the weeks of testing at JPL designed to identify the best escape strategy, Spirit has been productively using the tools on its robotic arm to analyze multiple layers of soil at Troy.

Provided by JPL/NASA (news : web)