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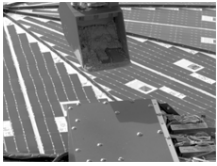


Image sequence showing the robotic arm of the lander delivering fine particles of soil to the test area NASA/JPL-Caltech/University of Arizona

## **Phoenix Back on Track - Soil Sprinkling Works**

### *Lander expected to conduct atmospheric observations in coordination with MRO*

After another couple of days of delay related to the unsuccessful attempt to deliver soil samples to the Thermal and Evolved-Gas Analyzer, NASA reported that the Phoenix Mars Lander was again back on schedule and pursuing the primary tasks of its mission. In a press conference yesterday, mission controllers said that the shaking technique destined to reduce the clumpiness of the sample worked exactly as expected and as proof they released a small video file (see featured image) showing the scoop of the robotic arm sprinkling fine particles of soil onto the lander. In the next days the spacecraft is expected to deliver soil samples both to the optical microscope it carried on board and to the other seven ovens on the TEGA instrument. The test performed last Friday was abruptly terminated when the scoop of soil poured over the instrument bunched up as the screen was shaken, leaving few to none particles into the oven to be analyzed. "This soil is very cohesive and it's very hard for it to get through the screen", said William Boynton from the University of Arizona, mission specialist for Phoenix in charge with the operation of the TEGA instrument. As it turns up, NASA and fellow mission controllers from the University of Arizona were not so unprepared as previously said in a press conference. The scoop of the robotic arm is in fact equipped with a rasp that shakes just enough soil, thus delivering it in a sprinkling fashion to reduce the risk of it clogging on top of the oven screen. The rasp had been originally designed to serve the optical microscope of the lander. As you can see in the upper image, only fine particles made it into the scoop of the robotic arm and to the test area of the lander. The technique will most likely be used during the water ice sample collection phase as well, scheduled to take place sometime later in the three month mission. "This is good news", said Ray Arvidson from the Washington University. Meanwhile, Phoenix is expected to coordinate with the Mars Reconnaissance Orbiter in order to make atmospheric observations from atop and below simultaneously. "It allows us to put the Phoenix measurements into global perspective and gives a ground level calibration for the orbiter's measurements", said Leslie Tamppari of the Phoenix project team from NASA's Jet Propulsion Laboratory.