Martian Skies Brighten Slightly

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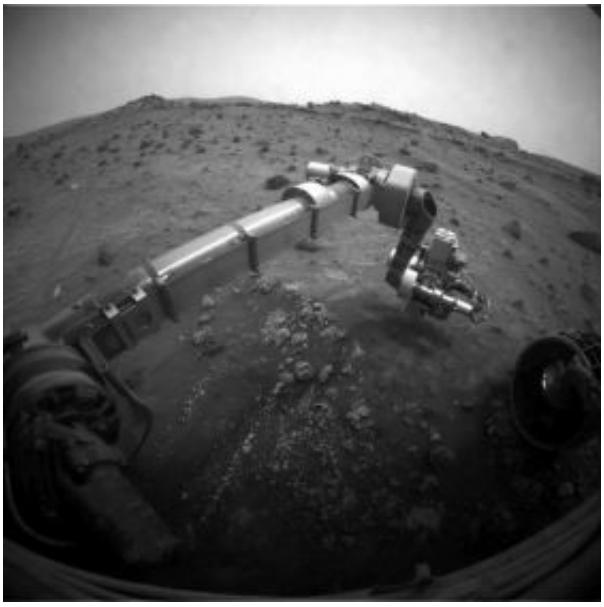

Spirit moved its robotic arm during the rover's 1,277th Martian day (Aug. 6) for the first time in 20 days. Image credit: NASA/JPL-Caltech/Cornell

Slight clearing of still-dusty Martian skies has improved the energy situation for both Spirit and Opportunity, allowing controllers to increase the rovers' science observations. Spirit is even being commanded to move its arm for the first time in nearly three weeks.

It will position the arm's microscopic imager to take a series of photographs of two soil targets and one rock target. Opportunity's planned science observations are for studies of the atmosphere.

Energy production from solar arrays increased to 295 watt hours on Spirit's 1,276th Martian day, or sol, which ended early Aug. 6, and to 243 watt hours on Opportunity's sol 1,255 which ended midday Aug. 5. The solar panels generate electricity from sunlight.

Dust storms obscuring the sun have cut daily output as low as 261 watt hours on Spirit and 128 watt hours on Opportunity in recent weeks, compared with levels above 700 watt hours per sol before the current series of Martian dust storms began in June. One hundred watt hours is what it takes to run a 100-watt bulb for one hour.

The increased output from the solar panels, though slight, has allowed Opportunity to fully charge its batteries and Spirit to bring its batteries to nearly full charge. Also, the temperature of the core electronics module on Opportunity, which was of concern when it fell to minus 35 degrees Fahrenheit (minus 37 Celsius) last week, has increased to minus 28.1 degrees Fahrenheit (minus 33.4 degrees Celsius).

"Conditions are still dangerous for both rovers and could get worse before things get better," said John Callas, rover project manager at NASA's Jet Propulsion Laboratory, Pasadena, Calif.

"We will continue our cautious approach to the weather and configure the rovers to maintain a high state of charge on the batteries. Communication sessions with both rovers will remain limited until the skies clear further."

Source: NASA