Mars science laboratory mission status report

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This artist concept features NASA's Mars Science Laboratory Curiosity rover, a mobile robot for investigating Mars' past or present ability to sustain microbial life. Credit: NASA/JPL-Caltech

During processing of NASA's Mars Science Laboratory at NASA's Kennedy Space Center, Fla., an incident occurred on Friday, May 20, involving the spacecraft's back shell.

A crane lift of the hardware caused unexpected mechanical loads on interfaces between the back shell and its ground support equipment. These interfaces are used during ground operations in preparation for launch. A structural assessment of the back shell was performed in the area of these interfaces.

Inspections and analyses through Monday, May 23, have not identified any damage. Flight processing is expected to continue this week.

The back shell is used to protect the rover and descent stage during entry in Mars' upper atmosphere.

Mars Science Laboratory will launch during the period from Nov. 25 to Dec. 18, 2011, taking its rover, Curiosity, to an August 2012 landing. During a two-year mission on Mars, Curiosity will investigate whether a selected area of Mars has offered environmental conditions favorable for microbial life and for preserving evidence about life.

The spacecraft's back shell, heat shield and cruise stage were delivered to Kennedy Space Center on May 12. The rover and descent stage will be delivered in June.

Provided by JPL/NASA