

NASA Advisory Council Subcommittee Recommendation

Subcommittee Name: Planetary Science

Chair: Sean Solomon

Date of Public Deliberation: 3-4 March 2008

Date of Transmission to Science Committee: 28 March 2008

Short title of the proposed Recommendation:

Support for a 2009 launch for Mars Science Laboratory

Short description of the proposed Recommendation

The PSS recommends that NASA make every effort to solve MSL's cost growth problems in 2008 and 2009 so that the mission may remain on schedule for its 2009 launch.

Major reasons for proposing the Recommendation

In late fall 2007, the Mars Science Laboratory (MSL) project presented NASA with estimates of more than \$100M above the then-current cost ceiling to complete the mission on schedule for a 2009 launch. Program review and an independent review team corroborated the magnitude of the increase, which stood at \$165-200M at the time of the PSS meeting. Sources of cost growth are widespread but include fabrications costs, underestimates of design complexity, and late deliveries. An important question addressed by the program was whether MSL could launch in the next available window, 2010-2011, and the assessment was affirmative. The additional cost of slipping the launch, however, was reported to be as high as \$350M. Given the cost of this delay, and the other pressures on the budget of the Mars Exploration Program (see Recommendation #2), the PSS recommends that NASA make every effort to solve MSL's cost growth problems in 2008 and 2009 so that the mission may remain on schedule for its 2009 launch.

Consequences of no action on the proposed Recommendation

The slipping of MSL to a 2010-2011 launch would cost the Mars Exploration Program as much as \$350M, endangering the schedule for future missions including Mars Sample Return.