

RECORD OF ENVIRONMENTAL CONSIDERATION

1. Description and location of proposed action:

The Mars Science Laboratory (or MSL for short) is a NASA rover scheduled to launch in September 2009 and perform a precision landing on Mars in July-September 2010. The MSL is a NASA initiative with main support coming from the Jet Propulsion Lab in California. This rover will be three times as heavy and twice the width of the Mars Exploration Rovers (MERs) that landed in 2004. The mission includes many advanced experiments including some provided by the international community as well as the MEDLI (MSL Entry, Descent, and Landing Instrumentation) Project. MSL will be launched by an Atlas V 541.

The MEDLI Project's main objective is to measure aero thermal environments, sub-surface heat shield material response, vehicle orientation, and atmospheric density during atmospheric entry through the sensible atmosphere down to heat shield separation of the MSL entry vehicle. NASA Langley Research Center is the lead for the MEDLI Project, which is a subset of the larger MSL and Mars Exploration mission. The MEDLI instrumentation suite will be installed in the heat shield of the MSL entry vehicle. The acquired data will support future Mars missions by providing measured atmospheric data to validate Mars atmosphere models and clarify the design margins on future Mars missions. MEDLI instrumentation consists of three main subsystems: MEDLI Integrated Sensor Plugs (MISP), Mars Entry Atmospheric Data System (MEADS), and the Sensor Support Electronics (SSE).

MEDLI operates and acquires data for approximately 14 minutes during Entry, Descent, and Landing (EDL). The SSE/Descent Stage Power and Analog Module (DPAM) interface includes both power and data transfer.

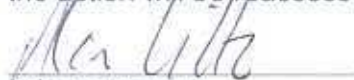
The project manager for MEDLI is Alan Little. (757) 864-1656

2. The duration of proposed action is from November 2007 to December 2008.

3. The cost of proposed action is \$17.5 million.

4. It has been determined that the above action qualifies for Categorical Exclusion #1 under 14 CFR 1216.305 (d), which describes NASA's Criteria for determining if an environmental assessment under NEPA is needed and has no special circumstances which would suggest a need for an Environmental Assessment.

Determination: This action is categorically exempt from further environmental assessment based on the information provided in the project description. If there are changes to the siting or other aspects of the project then this document is invalidated and the action will be reassessed.


Project Manager


CONCUR
NONCONCUR

4/13/08
Date


Acting Head of Environmental


CONCUR
NONCONCUR

12-16-08
Date