



# **2003 Decadal Survey Lessons Learned**

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# Mars Exploration and Community Then

- Mars Global Surveyor was in operation, Odyssey was just reporting key science results
- MEPAG has only just begun its activity, Ron Greeley chair
- The Mars Exploration Program was nascent having just begun the development of the science and community infrastructure needed to make it effective
- The Mars Exploration Rovers were being built and the Mars Reconnaissance Orbiter had just had its instrument selections (Fall 2001)
- Mars Science Laboratory was a twinkle in someone's eye

# Panel Structure

- COMPLEX undertook the study “Assessment of Mars Science and Mission Priorities” with John Wood as chair  
J. Mustard W. Boynton J. Hayes R. Buck K. Meech A. Reysenbach  
A. Nagy K. Knoll A. Sprague B. Schopf B. Pappalardo
- Basis of the Mars panel input to decadal survey
- Operated as a traditional NRC SSB committee rather than a broad community and consensus building body
- No town hall meetings/outreach during the critical period of development of science background and priorities
- White papers did not factor in at all in the deliberations as they arrived largely after the COMPLEX committee has completed its work and had moved on to the Steering Committee

# Structural and Procedural Issues

- The relationship to MEPAG was poorly defined
  - Briefed MEPAG, MEPAG did not brief the panel
  - Did not receive input from MEPAG even as white papers
- There was little constraint on costing where most of the cost figures were left unchallenged or unexamined in detail
- The panel and steering committee needed to have a robust and thorough examination of key technologies needed for the proposed missions.

Understand the # of miracles/mission

## Other Comments

- The review of the state of Mars science was complete and comprehensive
- Mars chapter emphasizes sample return in a strong way but as a stand alone effort and not connected to the steps needed along the way
- MSL was poorly received (“*MSL mission may be important, indeed essential, as a technology-demonstration precursor mission to MSR, but the Panel saw little science for MSL that cannot be done as well or better by the missions discussed above*”): not well articulated to the panel, science goals not defined, and relationship to a program opaque
- Exploration of Mars seen as a collection of missions and not a program