# NASA Advisory Council
# Subcommittee Recommendation

Subcommittee Name: Planetary Science

Chair: Sean Solomon

Date of Public Deliberation: 9 January 2009

Date of Transmission to Science Committee: 21 January 2009

Short title of the proposed Recommendation
Internationalization of major missions

Short description of proposed Recommendation

The PSS recommends that international partnerships be sought only for carefully targeted mission opportunities for which the mission objectives are particularly ambitious and the strategic objectives of the partnering organizations can be met in a mutually satisfactory fashion.

Major reasons for proposing the Recommendation

The PSS is of the general view that international cooperation can be an effective means to accomplish a mission that is more ambitious in its scientific objectives and technical requirements than NASA alone can support. The Cassini-Huygens mission is an example where such a partnership involved shared objectives, cleanly separable technical responsibilities, and the successful accomplishment of an impressive set of mission objectives. Additional examples of international cooperation can be found in other branches of space science. Moreover, the next Outer Planet Flagship mission and ambitious missions to Mars, certainly including MSR, are mission concepts that benefit by combining the resources and talents of more than one space agency, and in the longer term it can be expected that mission objectives will tend to increase in ambition and cost as easier tasks are accomplished and more challenging ones remain.

Balanced against the greater resources that can be applied toward a joint mission are the additional levels of negotiation required to reach a mutually agreeable partnering arrangement, the need to bring into phase the decision processes of two or more organizations that operate under different constraints and schedules, and the added time that these complexities impose on mission concept definition and development. Moreover, there are key areas of technological expertise for which NASA will always wish to maintain a position of leadership in robotic exploration.

Consequences of no action on the proposed Recommendation

In the absence of this recommendation, SMD will have no outside guidance on seeking international partnerships for major missions. This will result in the loss of confidence of the scientific community in NASA's decisions. NASA may also overcommit resources to international partnerships without the support of the science community.