National Aeronautics and Space Administration

Office of the Administrator
Washington, DC 20546-0001

February 12, 2014

Dr. Steven W. Squyres
Chairman
NASA Advisory Council
Washington, DC 20546

Dear ~~Dr. Squyres~~ Steve:

Enclosed is a NASA response to a recommendation from the NASA Advisory Council meeting held on December 11-12, 2013, at Kennedy Space Center, Florida. Please do not hesitate to contact me if the Council would like further background on this response. I appreciate the Council's thoughtful consideration leading to the recommendations and welcome its continued findings, recommendations, and advice concerning the U.S. civil space program.

I look forward to working closely with you and members of the Council in the future.

Sincerely,

Charles F. Bolden, Jr.
Administrator

Enclosure:
2013-03-03 (SC-03) Reporting Line of Planetary Protection Office

NASA RESPONSE

NASA Advisory Council Recommendation

Reporting Line of the Planetary Protection Office
2013-03-03 (SC-03)

Recommendation:
The Council recommends that the Planetary Protection Office (PPO) be moved so as to be out of any Mission Directorate and located with a reporting line that assures the PPO's independence and freedom from conflict of interest.

Major Reasons for Proposing the Recommendation:
The Mars Science Laboratory (MSL) Lessons-Learned Report specifically recommended reconsideration of "*the current organizational arrangement for the PPO to ensure that Planetary Protection is fully independent of any operational division. In addition the PPO role should be re-examined in light of PPO's expanding role, to include human exploration and cross-mission trades for sample return.*" While Planetary Protection is strongly rooted in science, the Planetary Protection function entails broader responsibilities, including responsibilities of a regulatory nature and involving compliance with international treaties and agreements to which NASA is a party. Furthermore, the Space Studies Board, long anticipating the MSL Lessons-Learned Report, has previously advised NASA that it must ensure the integrity and independence of the Planetary Protection Office and advisory bodies as separate from the science side of the Agency [National Research Council (NRC) 1992, 1997, 2002].

The definition and implementation of Planetary Protection, while requiring continuation of its essential roots in science, is also of significance to the technical engineering aspects of missions. A primary reporting relationship between the PPO and the Offices of the Chief Scientist and Chief Engineer, for example, could provide an effective independent structure for working with the Science Mission Directorate (SMD) and the mission projects to ensure balance, effectiveness, and cost-effectiveness in the application of Planetary Protection measures. Furthermore, while the primary responsibility for defining standards for life-detecting experiments would still reside with science investigators and SMD, placing the PPO reporting line outside of SMD would provide an effective independent framework for evaluating the implications of the results of life-detecting experiments, for Planetary Protection as applied to subsequent missions.

- NRC 1992, Biological Contamination of Mars: Issues and Recommendations, National Academy Press
- NRC 1997, Mars Sample Return: Issues and Recommendations, National Academy Press
- NRC 2002, Quarantine and Certification of Martian Samples, National Academy Press

Consequences of No Action on the Proposed Recommendation:
The conflicts of interest – real and perceived – between Planetary Protection and the science and exploration programs, and the lack of independence, can dilute the force and credibility of NASA's Planetary Protection implementation, thus reducing the effectiveness and cost effectiveness with which Planetary Protection is incorporated into missions, and potentially undermining public confidence.

NASA Response:
NASA concurs in part. NASA's planetary protection activities are conducted in the context of well-elaborated international principles and policies established through the Committee on Space Research (COSPAR) and the National Academy of Sciences. At present, NASA's scientific and technical expertise applicable to planetary protection functions resides in SMD and situating these functions in this office optimizes access to these resources. NASA is in the early stages of planning for future human missions to Mars, in cooperation with the Human Exploration and Operations Directorate, and will revisit this rationale and the organizational location of the planetary protection functions within the Agency as this effort progresses.