National Aeronautics and Space Administration

Office of the Administrator Washington, DC 20546-0001



May 15, 2019

General Lester L. Lyles Chair NASA Advisory Council Washington, DC 20546

Dear General Lyles:

Enclosed is NASA's response to a recommendation from the NASA Advisory Council meeting held on December 10-11, 2018, at NASA Headquarters. Please do not hesitate to contact me if the Council would like further background on the response. I appreciate the Council's thoughtful consideration leading to the recommendation 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,

James F. Bridenstine

Administrator

Enclosure:

2018-03-03 (RPC-03) COSPAR

## **NASA Advisory Council Recommendation**

# COSPAR 2018-03-03 (RPC-03)

#### Recommendation:

NASA should establish a multi-disciplinary task force of experts from industry, the scientific community, and relevant government agencies, to develop U.S. policies that properly balance the legitimate need to protect against the harmful contamination of the Earth or other celestial bodies with the scientific, social, and economic benefits of public and private space missions. The recommended multi-disciplinary task force should be tasked with producing a detailed policy, provided to a joint session of the NAC Regulatory and Policy Committee, the Science Committee, and the Human Exploration and Operations Committee, that will describe best practices for the Administration, the science and research community, and private sector, to protect against harmful contamination and adverse changes in the environment of the Earth. The multi-disciplinary task force should also explore the use of the term 'Planetary Protection' relative to other terms utilized in the Outer Space Treaty.

### Major Reasons for the Recommendation:

The COSPAR regulations are becoming obsolete and do not properly account for the possibilities of human spaceflight and private sector missions. Creating a multi-disciplinary team to craft a balanced policy that can be implemented by NASA (and eventually COSPAR itself) will help to encourage new, innovative, human spaceflight, robotic, and private sector missions to Mars and other celestial bodies. The more of these missions that take place the more science, exploration, and commerce can be conducted.

### Consequences of No Action on the Recommendation:

If NASA adopts the COSPAR guidelines without any review or revisions they will have a chilling effect on robotic, human spaceflight, and private sector missions. The costs and complexity of conducting space missions will not be moderated and could become problematic. The result will be less science, exploration, and commercial activities, harming both national and global interests.

#### **NASA Response:**

NASA concurs with the recommendation. The NASA Science Mission Directorate (SMD) currently is establishing a Planetary Protection Independent Review Board, of approximately 10-15 members and short-term in nature, to assess and provide updates to biological contamination guidelines developed by the international Committee on Space Research (COSPAR). The Planetary Protection Independent Review Board's assessment will include analysis of the scientific, engineering, industrial, legal, and program management aspects of planetary protection. Results of the assessment will be documented in a non-consensus final report presentation, and the Independent Review Board will brief NASA, NASA advisory committees, and external stakeholders as appropriate.