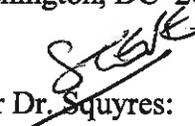


National Aeronautics and Space Administration
Office of the Administrator
Washington, DC 20546-0001



November 19, 2013

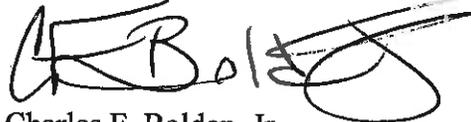
Dr. Steven W. Squyres
Chairman
NASA Advisory Council
Washington, DC 20546


Dear Dr. Squyres:

Enclosed are NASA's responses to three recommendations from the NASA Advisory Council meeting held July 31 - August 1, 2013, at NASA Headquarters. Please do not hesitate to contact me if the Council would like further background on these responses. I appreciate the Council's thoughtful consideration leading to these 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

Enclosures:

2013-02-03 (SC-01)
Evaluate Best Practices for Science Education and Public Outreach

2013-02-08 (EPOC-02)
Use of Mission Directorate Education and Public Outreach Resources

2013-02-09 (EPOC-03)
Citizen Engagement

NASA Advisory Council Recommendation

Evaluate Best Practices for Science Education and Public Outreach 2013-02-03 (SC-01)

Recommendation:

The Council recommends that NASA analyze the relative effectiveness of science education and outreach efforts at NASA, measuring against Agency goals and objectives and correlating with key variables (e.g., cost, expertise, science input, and target audience). Where there are clear successes, identify a set of best practices, and use less successful efforts to indicate lessons learned; disseminate these results for the benefit of any Federal organization engaged in education and public outreach (EPO) activities.

Major Reasons for Proposing the Recommendation:

The Administration has proposed consolidating EPO programs across Federal agencies and departments. To inform this process, it would be extremely valuable for NASA to mine data collected from decades of education and public outreach efforts, looking at metrics that reflect impact on the students and the public or that reflect other Agency goals and objectives. In particular, the direct involvement of scientists in Science Mission Directorate EPO activities has been extremely effective. The NASA EPO data are a valuable archive that could be exploited to the benefit of the nation, maximizing the value from limited Federal EPO dollars.

Consequences of No Action on the Proposed Recommendation:

Government planning for a new EPO structure would proceed without the valuable information derived from past activities and archives of NASA and other Science, Technology, Engineering and Mathematics (STEM)-active agencies, and the lessons learned from their previous EPO activities. This could potentially lead to waste and mismanagement of the nation's precious EPO resources.

NASA Response:

NASA concurs that analyzing the effectiveness of its investments in education and outreach efforts is a worthwhile effort. Consistent with the Administration and the Committee on Science, Technology, Engineering, and Math Education (CoSTEM) efforts to coordinate STEM efforts across the U. S. Government, the Education Coordinating Council (ECC) will support the Associate Administrator for Education in reviewing future investments by NASA in STEM education and prioritizing the education portfolio. The Science Mission Directorate, along with representatives from all other Mission Directorates and functional offices involved with NASA's education efforts, are represented on the ECC.

The Associate Administrators for Science, Education, and Communications, along with the Chief Scientist, are developing policy statements that will guide the Agency's EPO investments in FY 2014 should the Agency begin the fiscal year under a continuing resolution. The NASA Executive Council will review the policies and validate Agency direction at an upcoming meeting.

**NASA Advisory Council Recommendation
Use of Mission Directorate
Education and Public Outreach Resources
2013-02-08 (EPOC-02)**

Recommendation:

To the extent that missions have funding for Education and Public Outreach (EPO) activities, they should coordinate with Mission Directorates' EPO and utilize the most cost effective resources to accomplish such activities, be they inside NASA or out.

Major Reasons for Proposing the Recommendation:

Missions and their parent Mission Directorates often create EPO capabilities and products that overlap. While this diversity can be a plus, it can also be less cost-effective and produce EPO products and activities that are not consistent with overall Mission Directorate and NASA objectives.

Consequences of No Action on the Proposed Recommendation:

Duplicative and potentially inefficient EPO programs are developed that fail to leverage best practices and past lessons learned, leading to higher costs, and confusing public messaging.

NASA Response:

NASA concurs with the recommendation, as it is consistent with policies already established and utilized by Mission Directorates.

Consistent with the Administration and the Committee on Science, Technology, Engineering and Math Education (CoSTEM) efforts to coordinate science, technology, engineering and mathematics (STEM) efforts across the U. S. Government, the Associate Administrator for Education utilizes the NASA Education Coordinating Council (ECC) to review the Agency's investments in STEM education, and to prioritize the education portfolio. The Science, Human Exploration and Operations, Aeronautics Research, and Space Technology Mission Directorates have identified a Headquarters Education Lead, who is responsible for the coordination of all education activities funded by their directorates. These efforts are brought into the Agency-wide education portfolio through the ECC.

Further, a parallel process is governed by NASA Charter 1000.31, which establishes the NASA Communications Coordinating Council (CCC) to review the Agency's investments in communications and public outreach. The Science, Human Exploration and Operations, Aeronautics Research, and Space Technology Mission Directorates have identified a Headquarters Communications Lead, who is responsible for the coordination of all communications and public outreach activities funded by their directorates. These efforts are brought into an Agency-wide portfolio through the CCC.

NASA Advisory Council Recommendation

Citizen Engagement 2013-02-09 (EPOC-03)

Recommendation:

NASA plays a unique role in the inspiration and education of the public about programs in space, and has a stellar track record in this area. While the Council acknowledges that efficiencies may be gained through consolidation, the Council remains concerned with the proposed transfer of responsibility for outreach associated with NASA space missions to agencies and organizations with no spaceflight experience. NASA should ensure that funding remains in place for public outreach associated with NASA's missions.

Major Reasons for Proposing the Recommendation:

NASA, by virtue of its missions, currently plays a unique role in engaging the public in space exploration and exposing them to science and technology. These activities take place outside of the Science, Technology, Engineering and Mathematics (STEM) activities which are being consolidated under the FY 2014 reorganization.

Consequences of No Action on the Proposed Recommendation:

A unique and important capability to engage and inspire the public outside of the traditional education system will be lost.

NASA Response:

NASA partially concurs with this recommendation. In May 2013, the National Science and Technology Council's Committee on STEM Education (CoSTEM) released a strategic plan for Federal investments in STEM education which can be viewed at:

http://www.whitehouse.gov/sites/default/files/microsites/ostp/stem_stratplan_2013.pdf.

The plan calls for increased coordination among Federal agencies on five major priorities:

- Improve STEM instruction.
- Increase and sustain youth and public engagement in STEM.
- Enhance STEM experiences of undergraduate students.
- Better serve groups historically underrepresented in STEM fields.
- Design graduate education for tomorrow's STEM workforce.

To achieve these goals, the Administration developed a strategy for its FY 2014 President's Budget Request, which consolidates many education and public outreach activities and investments at the National Science Foundation, Department of Education, and the Smithsonian Institution. NASA will work closely with these three agencies and under further guidance the Agency receives through the FY 2014 appropriations process.

NASA has developed strong working relationships with the three agencies and is working closely with them as they develop implementation plans. NASA will bring its vast experience, as well as the people, resources, and facilities under its control into the Federal approach to STEM, and will ensure that its content is actively integrated into the Federal strategy.

NASA still has extensive education and outreach efforts that it will implement, including relationships with the National Space Grant consortia and through its Minority University Research and Education Project. Additionally, the Science Mission Directorate is revising its policy directives to ensure education and outreach activities funded by missions in FY 2014 are designed to inspire and engage students and the public, while still aligned with the Administration and the CoSTEM consolidation efforts.