

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



April 15, 2014

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

*STEVE*  
Dear Dr. Squyres:

Consistent with recent changes implemented to further enhance the effectiveness of the NASA Advisory Council (NAC), I am pleased to provide you with the enclosed 2014 Work Plan for the NASA Advisory Council. This Work Plan is intended to highlight for the Council and its committees those key areas of particular interest to NASA that could benefit significantly from the NAC's consideration. This Work Plan was developed in close coordination with each of the NASA Mission Directorates. This Work Plan is not intended to preclude other areas of potential consideration by the Council or its committees, but rather to highlight key areas of interest to NASA's leadership in CY 2014.

Thank you again for your continuing outstanding leadership of the NAC. I look forward to working closely with you and other members of the Council on these and other topics of interest in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Bolden, Jr.", with a long horizontal stroke extending to the right.

Charles F. Bolden, Jr.  
Administrator

Enclosure

## NASA ADVISORY COUNCIL

### 2014 Work Plan

#### Key Areas of Interest

- ***Overhauling NASA's Information Technology (IT) Governance Structure, and Ensuring the Security of NASA's IT Systems:*** Review and assess Agency plans to overhaul the current IT governance structure and ensure the security of NASA's IT systems. IT plays an integral role in every facet of NASA's operations, and its current governance model is very complex. The Agency's IT assets fall into two broad categories – Institutional and Mission – costing more than \$1.4 billion annually. Recent reviews have indicated that the decentralized nature of NASA's operations and its longstanding culture of autonomy may be hindering its ability to implement effective IT governance. In the area of ensuring the security of NASA's IT systems, NASA's high profile and the relative large number of Agency networks, coupled with its statutory mission to share scientific information, present unique IT security challenges. The Agency's vast connectivity with outside organizations, most notably nongovernmental entities such as educational institutions and research facilities, offer cyber criminals a larger target than that of most other Government agencies.
- ***Acquisition Reform, and Ensuring the Integrity of the Contracts and Grants Processes:*** Review and assess Agency plans for acquisition reform and ensuring integrity of the NASA contracts and grant process. Approximately 80% of NASA's annual budget is spent on contracts to procure goods and services and provide funding to grant and award recipients. Given the large amount of taxpayer funds that NASA spends on contract awards, managers are constantly challenged to ensure that the Agency pays contractors in accordance with contract terms and receives fair value for its money. Although NASA has implemented processes intended to improve contractor performance and acquisition outcomes, additional work in the area is necessary. With regard to grants, NASA awards approximately \$500 million in grants annually to facilitate research and development projects; to fund scholarships, fellowships, or stipends to students and teachers; and to fund research performed by educational institutions or other nonprofit organizations. NASA faces the ongoing challenge of ensuring these grant funds are administered appropriately and that the recipients are accomplishing stated goals.
- ***Capability Driven Framework for Future Human Exploration:*** Review NASA's plans both for evolving the Capability Driven Framework (CDF) and in the effective communication of it to our stakeholders. Advising on the CDF for future human exploration will be needed in light of the National Research Council report expected in May 2014; this report includes future use of International Space Station (ISS) in its extended life. NASA is advancing the CDF to define the capabilities we will need as we move from "Earth-dependent" to "Earth-independent" (as we will need to be for a Mars expedition). This will include the use of ISS and its extended lifetime to mature and demonstrate exploration capabilities. This also will include the use of cis-lunar space as a "proving ground" for deep space exploration capabilities. The Asteroid Redirect Mission (ARM), both robotic and human encounter elements, are a part of this evolution.

- **Human and Robotic Mission Cooperation:** Assess the current state of interaction and cooperation between the human space flight and robotic science mission organizations, including but not limited to use of ISS, suborbital reusable launch vehicles, and short duration orbital platforms/cubesats. Provide recommendations to improve process, utilization, and outcomes as appropriate. As the capabilities for exploration (Space Launch System, Orion and ARM mission planning) mature and the Agency prepares to send humans to Mars in the 2030s, assess the opportunities for future collaboration to take advantage of the capabilities offered by both the NASA Human Exploration and Operations Mission Directorate and Science Mission Directorate, and provide recommendations to improve synergy between human and scientific exploration and advance Agency goals.
- **Knowledge Capture:** Offer suggestions on how to establish and the most useful approach for a Knowledge Capture program. Past NASA technology incarnations left no real knowledge behind for use in the future. NASA's Space Technology Mission Directorate and Human Exploration and Operations Mission Directorate want to be the places where others check first for what has been done, how to do, and what was learned. These organizations want to be on the cutting-edge and a resource for others.