



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

November 17, 2015

TO: Officials-in-Charge of Headquarters Offices  
Directors, NASA Centers

FROM: Associate Administrator

SUBJECT: Internal NASA Competition Practices

Over the past two years as the NASA Associate Administrator, I have sponsored various assessments of the Agency's core capabilities. Each assessment has resulted in recommendations toward Agency-wide solutions that are beginning to yield significant efficiencies. With that said, these assessments consistently cited competition among the NASA Centers as a primary impediment to reducing duplication of capabilities, as well as preventing collaboration across the Agency. To meet NASA's ambitious goals in a constrained budget environment, we must significantly reduce capability overlaps and depend upon each other to achieve mission success. To that end, I am committed to modifying how the Agency utilizes competitions in both the mission and research environments. We will be more selective in our use of competition, which should enable us to reduce today's process inefficiencies and the retention of rarely needed assets. The broader intent is to consolidate and strengthen the Agency's overall capabilities and, more specifically, to achieve the following goals:

- Maintain a balance of competitive and directed missions that focus on national and Agency objectives, consistent with the recommendations of the Decadal Surveys.
- Identify strategic missions assigned to primary Centers with the recognized, critical expertise for the Agency, with the intent of these Centers to depend on other Centers for specific mission tasks, hardware, and capabilities.
- Enable Center-to-Center collaboration through teaming arrangements based on each Center's core capabilities.
- Enable all NASA Centers and NASA's Federally Funded Research and Development Center to have access to all NASA facilities and capabilities.
- Increase innovation, within an acceptable risk posture, by enabling missions to more easily adopt new technologies recognized through Agency investment.
- Reduce the burden of mission-level competition by streamlining processes and expectations, thus allowing NASA itself to work together to formulate and prioritize alternative approaches to missions.
- Tailor the use of competition in selecting and funding individual research efforts to enable the internal NASA scientific community to spend less time on proposal writing and more time on advancing Agency-approved science and technology, while ensuring the alignment and quality of these efforts.
- Improve the opportunities for collaboration between internal NASA scientists by reducing competition between them.

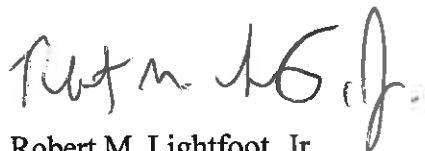
Achieving these goals will require dedicated efforts over time; nonetheless, I am directing the following actions to commence immediately:

1. With respect to research competition, the NASA Chief Scientist, in coordination with the Science Mission Directorate, is tasked to propose a revised model to fund and review the activities of internal scientists, with a more directed budgeting approach. The model should consider aspects of existing models, such as the NIH research quality review model. Specific options for early career NASA scientists to more rapidly apply their time and skills to NASA's needs must also be addressed. Finally, a revised approach to the hiring of scientists into the NASA civil service must be identified. The model must specify HQ-Center coordination mechanisms for civil servant scientist hiring, as well as requirements for those scientists to perform programmatic functions as needed. The intent is to assure alignment between the needs and future directions of the funding organizations and the number and specialties of NASA Center scientists. Results from the NASA Chief Scientists' action are to be documented in a white paper by March 2016, in advance of a review and endorsement by external stakeholders.
2. With respect to mission competition, the Science Mission Directorate (SMD), and where applicable the Space Technology Mission Directorate (STMD), is tasked to lead an assessment of their Announcement of Opportunity (AO) practices. In particular, SMD — and STMD for items c, d, f, g — should:
  - a) Gather lessons learned from the most recent Discovery AO for possible inclusion into future AO's, particularly the effectiveness of including incentives for use of specified technologies;
  - b) Identify future technology incentives for upcoming AO's, in consultation with STMD and the Human Exploration and Operations Mission Directorate;
  - c) Assess options to reduce the workload for Step 1 proposals;
  - d) Review the AO technical evaluation process to better understand and mitigate any bias against collaboration between Centers in favor of proposals that bid all technical capabilities (and/or facilities) at the proposing Center;
  - e) Identify core capabilities (or facilities) that can be included in upcoming AO's as potential teaming opportunities, or as an expansion of the mandatory capabilities such as currently designated with the use of the DSN;
  - f) Establish guidelines, by AO for mission class, to designate appropriate Center proposal leadership, and inter-Center collaboration arrangements; and
  - g) Coordinate across Mission Directorates regarding AO release schedules to minimize the burden to proposing teams.

Results from this SMD and STMD mission competition assessment, and a path forward for the upcoming AOs, are to be presented to the Agency Program Management Council in March 2016.

3. Finally, there is the potential for Center-to-Center competition to exist even when mission work is ultimately directed due to a lack of clarity in assigned roles for multiple Centers. To help reduce this secondary form of competition, I am requiring that all Mission Directorates specify directed mission assignments to Centers, and where feasible, document the assignments in the Advanced Mission Planning Model (AMPM). The Mission Directorates will present these assignments to senior leadership as part of pre-Acquisition Strategy Meetings prior to release of intent to direct a mission. The individual mission assignments must go beyond a "lead Center," and specify the roles of all Centers that would be expected to contribute to each mission's success. These Mission Directorate assignments are expected to align with NASA's capability leadership model. Of course, it is recognized that mission assignments could change as we progress through the corresponding budget cycles and as unanticipated partnership opportunities emerge.

By taking these immediate steps to improve our NASA competition practices, our internal workforce can focus on our priority research and mission efforts. Over time we will further recognize the core capabilities of each Center with the intent of minimizing redundancy between Centers for research, science, and mission development. By sharpening our Center identities, we will be better poised as an Agency to leverage our collective strengths and thus perform the challenging NASA opportunities ahead.



Robert M. Lightfoot, Jr.