

NASA Advisory Council Recommendation

Research Subcommittee of the Human Exploration and Operations Committee 2013-02-01 (HEOC-01)

Recommendation:

NASA should add commercial expertise to the already impressive membership of the Research Subcommittee of the Human Exploration and Operations (HEO) Committee. Specifically, the committee should receive input from research, development and commercialization leaders in one or more of the relevant industries (e.g., pharmaceutical, biological, materials science, etc.) that have experience in applied research.

Major Reasons for Proposing the Recommendation:

The current subcommittee is populated by an impressive cadre of research leaders from academia but commercial opportunities for research in microgravity are also important, as evidenced by several projects that have been achieved to date. Further, such input would provide a valuable link to the activities of the Center for the Advancement of Science in Space (CASIS), which has relationships with the NASA Space Life and Physical Sciences (SLPS) program.

Consequences of No Action on the Proposed Recommendation:

Subcommittee deliberations will reflect only the viewpoints and perspectives of academia, and therefore will not provide NASA with the broadest possible guidance from other important contributors to the research community.

NASA Response:

NASA concurs with this recommendation in principle. Commercial or industrial research is an important component of International Space Station (ISS) utilization, and effective advice from subject matter experts is vital to the successful accomplishment of Agency objectives. Recognizing that commercial research is an important component of ISS utilization, NASA was directed in the 2010 NASA Authorization Act to “enter into a cooperative agreement with an appropriate organization . . . to manage the activities of the ISS National Laboratory . . .” The organization selected to manage the ISS National Laboratory, CASIS, receives guidance from a Board of Directors and a Science Advisory Board. These boards are the primary sources of oversight and guidance for the management of CASIS. The communication and interaction between the Research Subcommittee and the CASIS boards will evolve as the CASIS boards evolve. At this time the CASIS boards are still expanding. We will evolve the membership of the Research Subcommittee accordingly.

The membership of the Research Subcommittee is limited in its Terms of Reference (TOR) to eight, and it currently has seven members. These members were chosen and selected following the criterion described in the TOR as: “[having] a broad awareness of the goals, capabilities, and requirements of human spaceflight and a familiarity with the national research and education community in science and engineering relevant to human

Enclosure

spaceflight.” The members were not expected to represent the perspective of individual scientific disciplines or communities, but rather to assist NASA in developing a stronger strategic connection between research and human exploration. The task of the Research Subcommittee is described in the TOR as “[to] review and assess NASA’s approach, progress, and plans for developing strategies and capabilities that reduce technical barriers to exploration missions and strengthen national research participation in human space exploration.” In the performance of this assignment, representation from the private sector could be valuable, but the perspective most needed might well be from medicine or industrial research and development. As the Research Subcommittee takes up this assignment and its efforts begin to mature, NASA believes that the range of perspectives needed to provide sound advice on the role of research and the involvement of the research community in human exploration will become clearer.