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

February 28, 2013

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

Dear Dr. Squyres:

Enclosed is NASA's response to a recommendation from the NASA Advisory Council meeting held November 28-30, 2012, at NASA Marshall Space Flight Center. 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 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

Enclosure:
2012-03-05 (CSC-01) Workforce Skill Mix

NASA Advisory Council Recommendation

Workforce Skill Mix
2012-03-05 (CSC-01)

Original Recommendation:
As a follow-up to Council Recommendation 2012-02-02 (CSC-01), the Council recommends that NASA revisit its near-term human capital planning to include specific new hires with significant outside business experience to enhance implementation of the Agency's vision of space commercialization.

Major Reasons for Recommendation:
The Council appreciates NASA's response to Recommendation 2012-02-02 (attached for reference), and applauds the tools available to equip the existing workforce for the transition to space commercialization through business education and other development programs. The workforce currently managing and supporting the Commercial Crew Program's integrated capabilities phase, the conclusion of the Commercial Orbital Transportation Services program, and the International Space Station (ISS) Commercial Resupply Services contracts possesses a wealth of applicable technical experience in human space development and operations and has demonstrated adeptness at implementing non-traditional acquisition strategies and government/industry partnerships. However, the Council is concerned that there still exists a skill gap that applies more broadly to the Agency-wide vision of pursuing many space commercialization opportunities, which will then enable applying NASA's limited resources to government-managed deep space human exploration.

The Council believes that achieving the expressed Agency vision, which will include new non-NASA markets for human space flight as well as many other new space commercialization initiatives, requires a workforce with significant outside experience in building entrepreneurial businesses, establishing new markets, competing for market share, and managing complex programs in a profit-motivated environment. This is needed at the Agency level as well as across the Centers where there is a need to create and successfully implement new commercial partnership opportunities. The Council finds from its recent Agency-wide fact finding that this is a gap today, and experience has shown that addressing it most effectively requires bringing in outside experience and business expertise to build into the existing workforce. This is the preferred and most direct option, and can be carried out in parallel with retraining the existing workforce. Practical, first-hand experience in a true commercial industry environment is needed, and will augment existing workforce skills and experience as NASA continues its transformation.

The Council recommends that NASA put in place specific hiring plans to bring more commercial industry business experience into the Agency as it seeks to continue moving forward with its transformation.

In addition to maximizing new commercial partnerships and opportunities, this new and enhanced Agency skill set would also benefit the technical execution of the commercial space

programs. It would bring a private-sector perspective to solving the challenges that will eventually be faced as the Agency and its partners balance safety, costs, and schedule in a commercial services rather than a government-managed environment.

Consequences of No Action on the Recommendation to Reconsider:
The Agency will continue to lack the types and depth of skills required to fully realize the space commercialization vision.

NASA Response:
NASA agrees in principle with the Committee's recommendation and is developing a suite of strategies to bring business expertise into the Agency.

NASA intends to include the Committee's recommendation to bring significant outside business experience into the Agency through a new veterans' hiring strategy. Veterans bring years of work experience and leadership capability to the Federal workforce. NASA intends, through the Federal Government Pathways Program, to seek individuals who entered military service following completion of an undergraduate degree, served several years in the military and private sector, and then used their G.I. benefits to pursue advanced degrees at the Nation's leading business schools. These individuals bring with them substantial leadership experience, knowledge of the Federal Government, and expertise in the most up-to-date business strategies.

Additionally, NASA has a number of hiring strategies available to address identified or emerging skills gaps. Civil service capability will continue to be enhanced by targeted hiring that is responsive to program requirements. Additional capability will continue to be acquired through the use of external experts and consultants, Intergovernmental Personnel Agreements, and temporary appointments.

Finally, NASA continues to address employee developmental needs on an ongoing basis. The Agency encourages employees to build their capability to support new programs through specialized developmental programs and business curricula. Development programs, such as the Business Education Program, include topics relevant to commercialization. The Agency also provides access to a wide variety of courses (classroom and on-line) on subjects such as business analysis, business execution, commercial development environment, and business operations.

NASA believes that the combination of developmental and hiring strategies mentioned above will bring required business expertise into the Agency and infuse new skills into the NASA workforce.