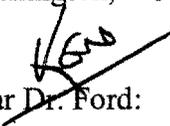




June 6, 2011

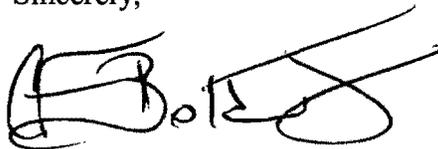
Dr. Kenneth Ford  
Chairman  
NASA Advisory Council  
Washington, DC 20546

  
Dear Dr. Ford:

Enclosed are NASA's responses to recommendations from the NASA Advisory Council meeting held on February 10-11, 2011, 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 observations, recommendations, and advice concerning the U.S. civil space program.

I look forward to working closely with you and the members of the Council in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Bolden, Jr.", with a stylized flourish at the end.

Charles F. Bolden, Jr.  
Administrator

Enclosures:

1. 2011-01-01 (CSC-01) Public Outreach for Commercial Activities
2. 2011-01-03 (SOC-01) Communicating the Human Spaceflight Vision
3. 2011-01-04 (TIC-01) Use of Secondary Payloads for Technology Demos

## NASA Advisory Council Recommendation

### Public Outreach for Commercial Activities 2011-01-01 (CSC-01)

**Recommendation:** The Council recommends that NASA encourage existing Commercial Orbital Transportation Services contractors to work with NASA's Office of Communications to integrate public outreach into mission planning and operations. The Council also recommends that NASA's Office of Communications draft a recommended commercial partner public outreach and participatory exploration policy (including contingency media/communications plans) to serve as a guideline when developing future partner agreements.

**Major Reasons for the Recommendation:** Current Commercial Orbital Transportation Services contracts between NASA and private sector space entities do not include any guidelines to insure reasonable public access to mission activities. The Space Act of 1958 requires NASA to "provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof." Public participation in space exploration remains a NASA priority to insure continued funding, recruit talent and inspire interest in Science, Technology, Engineering, and Mathematics (STEM) education. Therefore, it is in the mutual interest of the space agency and its commercial partners to ensure the public is granted a "front row seat" to future missions, providing such access is legal and does not compromise the intellectual property rights of the commercial entity, or unnecessarily divert resources away from higher priority mission activities.

**Consequences of No Action on the Recommendation:** NASA may not be able to effectively "provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof" as required by the Space Act of 1958.

**NASA Response:** NASA concurs with the recommendation. Immediately following the release of the Fiscal Year 2011 budget, the Office of Communications reached out to the new generation of commercial space providers to begin a coordinated effort to integrate their public outreach activities into a broader story, spotlighting the importance of this new space economy in the future of exploration. These ongoing discussions are now resulting in a much more open, transparent, and positive working relationship between all parties. Specific examples include live and extended media events with rocket engine tests for Orbital at Stennis Space Center in Mississippi. In the past, Orbital would take days or weeks to release images and information regarding any hardware tests. Now, media is encouraged to attend live engine firing tests in support of the Commercial Orbital Transportation Services (COTS) and other commercial spaceflight activities. Perhaps the greatest strides made in the Government/commercial relationship is with SpaceX. The Office of Communications initiated discussions with new SpaceX communications personnel to collaborate on mission coverage of its historic

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Falcon 9 launch and Dragon capsule splashdown. NASA Television was provided access to the launch, which was carried live on both satellite systems and streamed on <http://www.nasa.gov>. Since this launch was a COTS demonstration flight, NASA was able to convince SpaceX to provide media access to the vehicle on L-1, have company leadership participate in preflight briefings, and after the successful launch, founder Elon Musk personally participated on the post-launch news conference. Since then, we have established more direct communications with Orbital, provided extended coverage and access to its new mission control center in Virginia, and helped provide media access to hardware for its Taurus II launch vehicle for the Commercial Crew Development 2 announcement, the Office of Communications coordinated a media event for the companies awarded a Space Act Agreement as part of the preflight briefings at the upcoming Space Shuttle launch (STS-134). We are dedicated to providing greater public access to these new commercial partners while at the same time protecting their intellectual property rights. Also, there is a new Public Engagement Web site, scheduled to be launched in the fall, that will help illustrate public outreach activities for our new commercial partners.

## NASA Advisory Council Recommendation

### Communicating the Human Spaceflight Vision 2011-01-03 (SOC-01)

**Recommendation:** The Council believes there is a disconnect between the human spaceflight vision at the top levels of the Agency and the perception that is prevalent throughout the NASA civil servant and contractor workforce. The success of commercial launch to low-Earth orbit is imperative to the success of the NASA exploration beyond low-Earth orbit, including the capability for multiple destinations, with the ultimate goal being Mars. We recommend that a clear vision of the overall NASA direction of its human spaceflight program be communicated to the workforce and the public, to include the commercial and deep space exploration components. NASA should publish specific goals and objectives, and communications should include an enrollment plan, town hall meetings, the NASA Web site, social media, and other forums. Follow-up will be required to ensure that the message is received, and that actions are underway commensurate with the vision.

**Major Reasons for the Recommendation:** Motivate the workforce behind the vision. A more informed workforce is more productive. Improve NASA's image with the public. Tie in with Science, Technology, Engineering, and Mathematics (STEM) education and inspiration. Eliminate the perception of competition between low-Earth orbit and deep space programs.

**Consequences of No Action on the Recommendation:** Potential lack of workforce commitment and motivation. A potentially deteriorating NASA image, both internally and externally.

**NASA Response:** NASA concurs with the recommendation. To better inform the Agency's workforce, NASA has created an internal communications working group that is looking to implement additional internal communication and assessment activities. A number of improvements already executed include periodic video messages from the Administrator and the Deputy Administrator, regularly scheduled communications from the Agency's senior leadership, and special weekly video feeds titled, "This Week @NASA," that share topical Agency developments targeted for internal audiences. To better engage in more of an ongoing conversation with the Agency's workforce, NASA is exploring additional investments in communications technology and expanding staff dedicated to these activities. Also, there will be regular assessments and research projects in an effort to measure the effectiveness of the Agency's internal communications. With the release of the Fiscal Year 2012 budget proposal and a new vision for NASA as part of the 2011 NASA Strategic Plan, NASA has brought all of the Agency's communications efforts under one organization, known as the Communications Coordinating Committee (CCC), in an effort to bring more focus to the Agency's highly fragmented outreach efforts. Given the strained fiscal environment in which all Federal agencies are working, NASA must be more judicious with its communications resources and try to rally

them behind common themes and messages that support the overall objectives and not specific projects and programs. The Office of Communications, in coordination with senior leadership and other Administration representatives, put together comprehensive messaging packages that addressed the larger Agency initiatives and focused on individual Center activities. These messages were created to enable the Agency to speak publicly with “one voice” as it talked about the future. The messages centered around three primary themes: 1) NASA’s new exploration efforts maintain our commitment to human spaceflight and the technologies of the future that will help us reach an ever more challenging array of destinations; 2) continues the Agency’s focus on a reinvigorated path of innovation and technological development that will help us create jobs and remain competitive in the global marketplace; 3) and provides for strong programs to continue the excellent science, aeronautics research, and education that will help us win the future. Additional themes and messages communicated to both internal and external audiences include:

President Barak Obama’s budget proposal supports all elements of the bipartisan NASA Authorization Act of 2010. NASA has accepted the challenge given in this budget to live within our means so we can invest in our future. Tough choices had to be made, but this budget puts us on a responsible path to win the future by out-educating, out-innovating, and out-building the rest of the world.

Our future exploration initiatives focus on the safety of our American astronauts living and working in space. They make smart investments in the commercial space industry and prioritize our efforts to ensure that American astronauts and their cargo are transported by American companies, rather than continuing to outsource this work to foreign governments.

Funds human spaceflight programs to maximize current capabilities such as the International Space Station, executes innovative approaches to ensure U.S. leadership in low-Earth orbit, and positions the Agency to explore the frontiers of deep space.

Develops a heavy-lift rocket and crew capsule to carry explorers beyond Earth’s orbit.

Supports new science missions and the many space observatories and Earth-observing systems successfully carrying out their work now.

Supports aeronautics research, focusing resources toward enhancing aviation safety and airspace efficiency and reducing aviation’s environmental impact.

Invests in high-payoff, high-risk technology that industry cannot tackle today. Helps NASA mature technology for future missions and prove the capabilities and lower the cost of other Government agency and commercial space activities.

Stimulates the economy and builds our Nation’s global economic competitiveness through technology investments that create new products and services, new business and industries, and high-quality, sustainable jobs.

Helps the Agency look at new ways of doing business, improve program management, and bring the American people the space program they deserve in a way we all can afford.

Educates the next generation of technology leaders through vital programs in science, technology, engineering, and mathematics education.

Specific messages for NASA's ten Centers were developed, distributed, and discussed in detail in ongoing video conferences and teleconferences with all internal and external communications staff. Again, the desire is to be able to provide information about how each Center will approach the Agency's future direction while, at the same time, fitting into the larger NASA organization.

NASA is a recognized leader in social media and other forward-leaning technologies designed to better share the Agency's messages with a variety of external and internal audiences. Working with the Astronaut Office, the Office of Communications has provided crews with training in tools such as Twitter, Flickr, Gowalla, Foursquare, and other Web sites that have resulted in unprecedented news coverage and recognition. In March 2011, Astronaut Doug Wheelock was honored with a Shorty Award, a recognition of popular "tweets," at an annual ceremony in New York. By a wide margin, NASA placed first in a study released on April 5, 2011, that ranks 100 public sector organizations in the effectiveness of their Web sites, digital outreach, social media use, and mobile sites. The L2 Digital IQ Index: public sector, a think tank for digital innovation, was conducted by New York University Professor Scott Galloway, Doug Guthrie, Dean, George Washington University School of Business, and a team of experts from L2. The study reports that NASA "is in its own stratosphere" and the clear leader in digital use, noting the Agency's innovation on nearly every platform. The 26-point spread between NASA and the next closest organization is the largest seen in any of L2's Digital IQ Index studies to date. Studies in the past year and a half have looked at more than 500 private and public sector organizations, including luxury, beauty, automobile, pharmaceutical, and retail industries.

Reinforcement of NASA's themes and messages is an ongoing effort. A recent meeting of the Agency's CCC was solely devoted to discussing the specific themes and messages outlined in this response and how best to share information with a variety of internal and external audiences. Senior leadership also recently approved a comprehensive internal communications assessment effort so the organization can better engage in a dialog with the workforce, ensuring, as NASA moves forward, that it has a mechanism to inform, discuss, and receive reaction and contributions from its dedicated employees.

## NASA Advisory Council Recommendation

### Use of Secondary Payloads for Technology Demos 2011-01-04 (TIC-01)

**Recommendation:** The Council recommends that NASA encourage the use of secondary payloads (where feasible) on future NASA and commercial missions as an important capability for testing, validating, and demonstrating new technologies and scientific payloads in the coming years.

**Major Reasons for the Recommendation:** The Council discussed the underutilization of NASA and commercial expendable launch vehicles (ELV's) and reusable launch vehicles (RLV's) launch capacities for secondary flight payloads for technology validation and demonstrations. The Council believes that NASA should encourage missions with additional payload capacity to make it available for research. Secondary payloads are vital for testing and proving many technology capabilities, especially in times of constrained budgets and resources.

**Consequences of No Action on the Recommendation:** Missed opportunity to utilize an underused resource for technology demonstrations. Many transformative technologies that could be validated as a secondary payload would remain at a lower Technology Readiness Level (TRL) level and may not advance for use on later NASA missions.

**NASA Response:** NASA concurs with the recommendation and agrees that use of secondary and/or hosted payloads would allow for more technologies to efficiently advance to a higher technical readiness level.

As the Office of the Chief Technologist (OCT) identifies technology payloads ready for flight demonstration, the office will work with the Science Mission Directorate and the Space Operations Mission Directorate, as well as with the United States Air Force's Space Test Program, to identify appropriate launch vehicles and spacecraft platforms to accommodate these payloads. This may include either Government or commercial launch vehicles (including OCT/Flight Opportunities Program-sponsored commercial suborbital reusable launch vehicles and parabolic flight services), or accommodation on other NASA or commercial spacecraft platforms.

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