United States Senate
COMMITTEE ON COMMERCE, SCIENCE,
AND TRANSPORTATION

WASHINGTON, DC 20510-6125

January 13, 2011

The Honorable Charles F. Bolden, Jr.
Administrator
National Aeronautics and Space Administration
300 E Street, SW
Washington, DC 20546

Dear Administrator Bolden,

We appreciate the timely submission of the recent report to Congress on the reference designs for the Space Launch System and Multi-purpose Crew Vehicle, as mandated in Section 309 of the NASA Authorization Act of 2010 (P.L. 111-267). As the report states, the Authorization Act provides clear direction to the agency and we are unified in the goal of implementing the Act as expeditiously as possible while preserving a capable and vital workforce and ending the uncertainty that the agency has endured for nearly two years.

The Reference Vehicle Designs for both the Space Launch System and Multi-purpose Crew Vehicle appear to be within the parameters described in the Authorization and are an important step forward. The report indicates concerns with the designs' affordability, but does not include the required detail regarding procurement and management innovations that the law intended to be a part of the new vehicles' development. If the law directed NASA to start with an entirely new development without the use of existing contracts, technologies, and infrastructure, we can see where affordability may come into question, but this conclusion suggests a misunderstanding of the Congressional intent.

The law directs NASA to build on past investments in human space flight by leveraging existing knowledge and assets from the Space Shuttle and Constellation programs. Billions of dollars have been invested in each of these systems, which reduce risk, advance technology, and allow NASA to evolve new capabilities incrementally using a "pay as you go" approach. We specifically rejected the notion of relying on major new developments in launch vehicle design – the schedule and cost risks associated with such an approach have been the Achilles' heel of too many prior efforts to develop new launch systems at too great a cost.

By building on current capabilities and previous investments, and making effective use of NASA's existing workforce and contracts to focus on the immediate development of a heavy-lift rocket and crew vehicle, NASA can reach initial operating capability much more quickly than it can by conducting another vehicle study. The

report indicates that "NASA has analyzed more than 2,000 separate launch vehicle concepts and architectures..." over the last decade. Previous studies by both NASA and industry have indicated that, by building on past investments and available technologies, NASA can reach initial operating capability of a scalable heavy-lift launch vehicle with the funds authorized, especially if the agency refines its procurement, contract management, and oversight processes.

The report contains no specific justification or analyses to validate the claim that "none of the design options studied thus far appeared to be affordable in our present fiscal conditions." We expect NASA to work with Congress to identify the basis for the claims made in the report, how existing contracts and technologies will be utilized, and where any additional congressional action may be needed to ensure successful implementation of the law.

We also want to make sure that implementation progresses swiftly, even with the limitations of a continuing resolution (CR). While the CR prohibits NASA from terminating Constellation contracts and initiating new programs or activities, NASA has the ability to modify both existing contracts and the scope of existing activities. As Dr. Robinson testified before the Senate Commerce Committee last December, even with the appropriations restrictions, NASA can still go forward with development of a new Space Launch System and multipurpose crew vehicle, as well as support for the development of commercial cargo and crew capabilities. Dr. Robison's testimony confirmed that NASA can proceed immediately with these activities, and we will work to provide ongoing oversight to ensure that NASA moves rapidly with the necessary decisions to fully and faithfully implement the direction provided in the law.

A letter from NASA's Inspector General (IG) sent to Congress today points out that the appropriations restriction on terminating Constellation contracts is "a problem ripe for correction." While "NASA has taken steps to concentrate its spending on those aspects of the Constellation Program it believes may have future applicability...as NASA moves closer to making final decisions regarding how best to move forward in designing and building the next generation space system, it will become increasingly more difficult for the Agency to continue to juggle the inconsistent mandates of the Authorization Act and the appropriations legislation so as to avoid wasting taxpayer funds."

We agree with the IG that Congressional action should be taken as swiftly as possible to redirect funds to meet the goals of the Authorization Act. Attempts to do so in last month's lame duck session were unsuccessful as a result of a larger debate on the FY 2011 budget. In these tight budget times, NASA needs to be able to apply all of the limited resources it has in the most efficient manner to execute its mandate. We will work with our Appropriations Committee colleagues to assist them in achieving this as quickly as possible. In the interim, we urge you to continue moving forward with the contract modifications necessary for the Space Launch System and Multi-purpose Crew Vehicle development that are not impacted by the prohibition on termination.

Finally, we would like to clarify our intent when stating "to the extent practicable" in the Authorization Act, such as the direction to leverage Shuttle and Constellation capabilities "to the extent practicable" in developing the Space Launch System and the multi-purpose crew vehicle. Federal courts have held that the phrase "to the maximum extent practicable" imposes "a clear duty on [an] agency to fulfill the [relevant] statutory command to the extent that it is feasible or possible" (*Fund for Animals v. Babbitt*, 903 F. Supp. 96, 107 (D.D.C. 1995) (noting that the phrase "does not permit an agency unbridled discretion"). Further, the Government Accountability Office has determined that "where Congress directs that a [contracting] preference be given to the greatest extent practicable, an agency must either provide the preference or articulate a reasoned explanation of why it is impracticable to do so" (*Ocuto Blacktop & Paving Company, Inc.*, Opinion B-284165, March 1, 2000 (holding the Army Corps of Engineers had failed to demonstrate why providing a contract preference to a local business was impracticable)). Thus, in the context of the NASA Authorization Act, we believe that those statutorily directed actions to be performed by NASA "to the maximum extent practicable" or "to the extent practicable," such as the requirement in Section 302 of the law to extend or modify existing contracts, should be carried out, unless the agency can demonstrate why they are infeasible or impossible to perform.

As we noted in a statement yesterday, the NASA Authorization Act of 2010 that we worked so hard to pass last year is not an optional, advisory document: it is the law. We fought for this legislation because it was the right solution to the extraordinary challenge we face. We look forward to continuing to work with NASA to ensure the vitality of our Nation's space program.

Sincerely,

Bill Nelson
Chairman
Subcommittee on Science and Space

Kay Bailey Hutchison
Ranking Member
Commerce, Science, and
Transportation Committee