

## **TALKING POINTS: THE PRESIDENT'S FY13 BUDGET PROPOSAL FOR NASA, ITS IMPACT ON SOLAR SYSTEM EXPLORATION, AND THE CORRECTIVE ACTIONS THAT ARE NEEDED**

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### **Impact of the President's FY 2013 budget request, reducing the NASA planetary budget by \$309M (20.6%), including reducing the Mars program by \$130M (38%):**

1. Immediate (2012) cancellation of two ambitious Mars missions with ESA, which may not be recoverable at this point.
2. Ending the highly successful U.S. Mars program that regularly accessed the Martian surface and maintained diverse orbital assets for the ongoing study of this dynamic and exciting world.
3. Declining net support for the foundational Research and Data analysis programs from which taxpayers gain ongoing return from their continued investment in solar system exploration missions and which provide and maintain the knowledge necessary to design cost-effective missions in the future.
4. Reduced support for ongoing solar system exploration missions, worsening a time of layoffs and hiring freezes for U.S. scientists and engineers, while reducing mission return.
5. Degrading the workhorse Discovery program from an early cadence of 24 months to nearly 5 years, and degrading the New Frontiers program from a planned cadence of two per decade to one per decade.
6. No new flagship-class missions – no more Voyagers, Galileos or Cassinis. This chapter in American solar system exploration closes with the recent launch of Mars Science Laboratory (Curiosity).
7. Though not book kept in the planetary budget, it is noted with some concern the immediate cancellation in 2012 of supplemental programs for education and public outreach, a primary means by which planetary research scientists first become involved with bringing their NASA funded research to the public and into the classroom.

**The principal planning document that inputs into the U.S. solar system exploration program is the “Planetary Decadal Survey” conducted by the National Research Council of the National Academy of Sciences - *Visions and Voyages for Planetary Science in the Decade 2013-2022* (2011). This document reflects two overarching principles:**

1. *Programmatic Balance with Priorities*: A mix of small, medium and large missions to support continuing discoveries and advancements in our knowledge of our solar system, with an emphasis on the importance of foundational research and technology programs. It is recognized that balance can only be achieved with adequate resources.
2. *Fiscal responsibility*: Recognizing past problems with mission cost overruns and the fact that there are limited resources to be deployed across government programs,

the Survey lays out clear descope and delay options in the event of cost overruns or insufficient funds, beginning with the largest, most expensive missions, and taking care to maintain foundational programs that preserve our capabilities into the future.

**The President's 2013 budget proposal does not allow Decadal Survey priorities to be effectively implemented across all mission categories, eventually leaving American presence and supremacy in solar system exploration greatly diminished and no longer preeminent.**

**REQUEST: The FY 2013 budget for NASA Planetary should be, at a minimum, maintained at the Congressionally approved FY 2012 level. In correcting the President's proposed budget for FY 2013, and consistent with the planetary decadal study recommendations, NASA should be directed to (in priority order):**

1. Increment the Research & Data Analysis program by 5% relative to FY 2011.
2. Fund technology development programs at 7-9% of the Planetary Division budget.
3. Continue to fully fund those missions returning high-value science data.
4. Restore the "Discovery" program to a 24 month cadence.
5. Select one of the recommended flagship missions to Mars or the Outer Planets, with priority to a flagship mission that would allow for New Frontiers to be restored to a cadence of two missions per decade.

**Reasons (not exhaustive) a healthy and reasonably funded solar system exploration program is important to the American taxpayer:**

1. To provide information about our solar system that is of fundamental importance to assess the present risks we face on Earth from space; to determine the opportunities for future human expansion in space for the nation with the vision to assess those opportunities and take advantage of them; to better understand geophysical and other processes across worlds including the Earth; to stimulate the development of new technologies; and to challenge, stimulate and help educate youth in the United States to excellence in the physical, chemical and mathematical sciences.
2. To ensure continued international scientific and engineering preeminence of the United States in space science and exploration and associated technologies and to ensure we have the necessary highly skilled, highly educated workers to accomplish that.