

March 7, 2012

Statement by
The Planetary Society

before the

Committee on Commerce, Science and Transportation
U.S. Senate

Hearing: Priorities, Plans, and Progress of the Nation's Space Program

The Planetary Society is deeply troubled with the priorities reflected in NASA's FY13 budget. If implemented, it will portend grave consequences for our nation's ability to conduct deep-space science missions and could irreversibly erode unique aspects of the space industrial base needed for such missions.

Specifically, the disproportionate cut to the Planetary Science budget would force NASA to walk away from planned missions to Mars, to back out of international agreements with the European Space Agency (ESA), delay for decades any flagship missions to the outer planets, and radically slow the pace of scientific discovery, including the search for life on other worlds. We think this is the wrong direction for America's space program.

Planetary Science is the part of NASA that's actually conducting interesting and scientifically important missions. Spacecraft sent to Mars, Saturn, Mercury, the Moon, comets, and asteroids have been making incredible discoveries, with more to come from recent launches to Jupiter, the Moon, and Mars. The country needs more of these robotic space exploration missions, not fewer.

For the first time in human history, we have the tools available to directly test the hypothesis of whether there is, or has been, life on other worlds such as Mars or Europa. Such a discovery would be a seminal event in human history and would have a deep and profound impact on how we view our place in the Universe, much as Copernicus sparked the Age of Enlightenment 500 years ago with his theory that the Earth orbits the Sun, just like any other planet. We stand at the dawn of a similar period in which our knowledge and understanding of the Universe is poised to take another giant leap forward.

We understand that NASA is undertaking a review to examine options for potential future Mars missions and we support efforts to put the program back on track, but we are also adamant that decisions for future planetary missions be guided by the most recent Planetary Science Decadal Survey of the National Research Council. It took almost two years to forge a consensus of 1700 planetary scientists and should not be dismissed or watered-down. NASA's science programs have achieved great successes based on the decadal-survey process and all should be reluctant to abandon it.

While it may appear attractive to develop an integrated strategy for Mars science missions and an eventual human mission to Mars, the lack of clear goals and tangible program plans on the human side suggests the discussion is premature, at best.

We recognize the intense fiscal and budget pressure the country faces. We understand that agency programs are receiving unprecedented scrutiny and that budgets are shrinking. However, today's budget environment is also an opportunity to take stock of what's working and what's not working, and to adjust priorities.

Today, approximately 27 percent of NASA's budget goes to Science, with 8 percent of NASA's total going to Planetary Science. The human spaceflight program (SOMD+ESMD) consumes about 45 percent of NASA's budget, and the remaining 28 percent goes to aeronautics, technology and infrastructure. The Planetary Society is a strong supporter of both human and robotic space exploration and a strong advocate for investments in technology. However, given the impacts of the proposed FY13 budget, some adjustments are needed.

Specifically, the Planetary Society recommends reallocating approximately 3 percent from within NASA's total budget to rebaseline the share for Science to at least 30 percent, and restoring the \$300 million cut to Planetary Science to fund it at \$1.5 billion. This modest rebalancing will allow NASA to fully implement the decadal survey for Planetary Science, send a mission to Mars and prepare for missions to the outer planets, while allowing NASA to continue a robust program of missions in Earth Science, Astronomy and Heliophysics.

We arrive at this conclusion primarily because NASA's Science program currently has an abundance of compelling world-class science missions with clearly defined mission goals and carefully crafted program plans that are poised to move out. We believe that a healthy and vibrant Science program is an excellent investment that will energize, engage, and inspire the next generation of scientists, engineers, educators and the public, as has been the case with the Mars rovers and many other missions. The diversity and frequency of science mission opportunities laid out by the decadal survey will significantly contribute to thousands of high-tech jobs in the aerospace industry, at research laboratories, and in universities. These programs will stimulate the best and brightest with interesting and meaningful scientific and technical challenges that will make our nation stronger and more competitive.

While we recognize these are difficult choices, we believe an increase in the share of the NASA budget for Science to 30 percent is the best place for the agency to make the most effective use of the taxpayers' money at this time and in today's budget environment.

We are at the brink of the next revolution in scientific understanding. A great government will lead this pursuit and makes these investments because it will make a difference to our society and to our children.

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About the Planetary Society

The Planetary Society has inspired millions of people to explore other worlds and seek other life. Today, its international membership makes the non-governmental Planetary Society the largest space interest group in the world. Carl Sagan, Bruce Murray and Louis Friedman founded the Planetary Society in 1980. Bill Nye, a long-time member of the Planetary Society's Board, is now the Executive Director.