

12 July 2011

Statement by
The Planetary Society

before the

Committee on Science, Space, and Technology
U.S. House of Representatives

Hearing: A Review of the NASA's Space Launch System

The Planetary Society, founded in 1980 by Carl Sagan, Bruce Murray, and Louis Friedman, inspires and involves the world's public in space exploration through advocacy, projects, and education. Today, the Planetary Society is headed by science educator Bill Nye and is the largest and most influential public space organization on Earth with 40,000 current members and a worldwide community of over 100,000. Dedicated to exploring the Solar System, understanding other worlds, and seeking life beyond Earth, the Planetary Society is non-governmental and nonprofit and is funded by the support of its members. We are pleased to submit this statement for consideration by your committee.

The Planetary Society believes that a strong and vibrant space exploration program is critically important to the nation, and to all humankind. Space exploration makes fundamental contributions to science, to our understanding of the cosmos, and helps answer deep questions about how our world came to be, whether life exists elsewhere, and what our destiny may be. Space exploration is also a potent symbol of optimism, achievement, and inspiration that lifts the human spirit and challenges us all to do better.

The Planetary Society, however, is deeply troubled with the direction the agency is headed in and the wrong-headed decisions that are driving the human spaceflight program into the ground.

The Planetary Society members are irate at the current state of the space program and believe a course correction is needed now. Several thousand Planetary Society members—and more to come—are taking a stand and objecting to the current direction by sending petitions to Washington to call on Congress to restore the future of the space program and to put it on a sustainable track to advance science, technology, and space exploration.

We are particularly upset with the recent cuts to NASA funding proposed by the House Appropriations Committee. While we all recognize the fiscal and economic challenges the nation faces, we believe the proposed cuts reflect perverse priorities and too far reaching, in particular the proposed termination of the James Webb Space Telescope and cuts to Earth Science.

Most disturbing is that cuts to world-class science are being used to pay for increases to develop a new rocket—the Space Launch System (SLS)— that has no mission goals, that NASA cannot afford to build, cannot sustain, and will not advance exploration.

With the intense fiscal pressure facing all agencies, NASA should focus on making the most efficient use of the money allocated to it. This means setting priorities and making decisions based on merit and readiness. It will be painful, but it is necessary. Most importantly, it is time to put wasteful programs aside, such as the SLS. We can no longer afford it, and it's an abuse of the agency's mission.

The Space Launch System will fail without clear mission goals – wasting Billions

Clear and achievable mission goals are absolutely essential for any program to succeed, especially a long-term program such as human space exploration. Without goals, adequate funding, and a sound technical plan, failure is inevitable, as has been demonstrated on numerous space programs in the past. Right now we have no such goals – the previous goal to return to the Moon failed to inspire the nation, and last year the Congress rejected the President's flexible path into the solar system with missions to near-Earth asteroids and then to Mars.

In its place, the Congress passed the NASA Authorization Act of 2010 which failed to provide the most important thing such a bill is supposed to do: provide clear goals and policies. Instead it had only muted references to long-term goals, and focused on technical details for the design for the Space Launch System, a rocket that may not be necessary, suitable or affordable for the nation.

Repeated national commissions, reviews and studies over the past twenty years have led to the same conclusion – exploration is NASA’s prime mission. As we noted, the human space program is without goals and adrift, and now that robotic exploration goals are being cut back as well, this is a travesty.

The Space Launch System is a rocket to nowhere

To preserve parochial interests and jobs in local districts is not an engineering principle that can be allowed to guide the design of new rockets for a bold and inventive spacefaring nation like the United States. But this is precisely what has been done. Congress used its legislative authority to dictate the design of a giant rocket to curry favor from special interests—to the tune of \$1.8 billion just in FY11, and Congress is now proposing to increase that level by \$185 million above what even NASA requested!

In addition to being a rocket in search of a mission, the SLS is an inhibitor to the development of the U.S. commercial launch industry. We have at least three industry developed rockets that might take humans into low Earth orbit for the next decade. Instead of starting up a government program to build an unnecessary fourth one, NASA should use its limited resources wisely to both encourage competition among the other three and to prepare advanced technology for a step into deep-space in the 2020s. We don’t need a government-built heavy-lift rocket in this decade, but we can prepare for a strong future with a technology program that will save money and better direct resources.

The Planetary Society advocates liberating NASA from the technical design constraints imposed by Congress and encouraging the commercial rocket industry with incentives and missions. The commercial industry and advanced technology may lead to the long-sought affordable lower cost access to space.

Halt the Space Launch System until there is a plan

The Planetary Society urges Congress to halt further spending on SLS unless and until there is agreement on goals and a clear, executable, sustainable and affordable plan for human space exploration beyond Low Earth Orbit is produced. If no plan can be produced, then we urge

Congress to stop further development and apply the balance of funding to the Science program where it can be used productively.