



Position Statement:
NASA FY2014 Budget

August 2013

**How to Revive Progress at NASA Within a Limited Budget:
Two Pillars for Renewed Hope**

Summary

Excessive attention to narrow special interests threatens to drain NASA's activities away to something ever smaller and less valuable to humanity. The National Space Society, a broadly based public interest group, urges Congress to craft a NASA budget which puts us back on track to do the hard work in science and engineering which restores our hope that humans will one day settle space in an economically sustainable way, which maximizes its contributions to sustainability on Earth, and which lives up to the full potential of NASA as an agent of growth in productivity and in the kind of jobs which have lasting impact. We see huge opportunities to get much more out of NASA, especially by INNOVATION and LEVERAGE, the twin pillars of renewed hope.

Innovation in Space

Economists have long agreed that growth in productivity, due to innovation, research and education, is the key to economic growth in general. When budgets are reduced in cutting edge research, the loss of benefits exceeds the savings in cost. US economic growth is especially at risk today, when many industrial R&D labs have shrunk, when the 6-1 and 6-2 (basic and applied) components of defense research have suffered, and when there is a growing "[gathering storm](#)" in the US technical workforce.

But does all spending by NASA bring these kinds of benefits to the economy? No government agency spends 100% of its budget on the kinds of things which really increase productivity. The fastest growth in productivity in the US happened at the

peak of Kennedy's Apollo project, and we do not believe that this was a coincidence. Kennedy did not just focus on the narrow goal of getting to the Moon in the shortest possible time; rather, he channeled funds into new high risk technologies and infrastructure. "We go to the Moon, not because it is easy, but because it is hard." The new technologies were designed to let us stay on the Moon longer, in a more sustainable way, but also to create new core capabilities such as integrated circuit capabilities for the civilian economy. That was good for human hopes in space, but also for the civilian economy. Since then, whenever myopic people have tried for short-cuts, the results have been far less.

The NASA budget needs to focus on advanced innovative activities, and restructure its plans to be more innovative. We should give full support to the existing Space Technology program, [as supported by a large coalition of private sector players](#). We should recognize that the Administration's proposed asteroid return initiative (ARRM) has a very large component of new technology, essential to all our destinations in space, not just the asteroids. We should maintain full funding of earth science, of human and robotic technologies, and of studies of exoplanets and basic physics which could open the door to new worlds. We support full funding of COTS and the commercial crew activity, with full use of the Space Act Agreements, which will allow us to spend more of the NASA budget over the next ten years in the US rather than Russia, and avoid the need for excess haste, obsolete technology and inefficiency in developing new launch vehicles. We also support restructuring of direct launch investments so as to reinvigorate and exploit the technology for partial and full reusability, such as passive hot structures for re-entry. We need to create the kind of jobs which breed innovation, not dead-end corporate welfare.

Leverage

The greatest successes in US space policy beyond Kennedy and the space shuttle all involved leverage – the use of partnership with other nations and the private sector, to achieve a critical mass beyond the capabilities of any one player. Intelsat, Apollo-Soyuz and the International Space Station are all great examples. NSS is very much excited by the large-scale potential of the new [international partnership proposed by Dr. Abdul Kalam](#), former President of India, to develop the technology for affordable energy from space, and the low-cost launch technology needed to make this realistic. The entire world needs access to the kind of low cost launch services which are feasible only in partnership with advanced US technology providers. NSS urges Congress to structure new investments in reusable launch and space solar power technology at NASA in such a way that they can be included as part of the Kalam initiative, subject to sufficient matching funds from abroad and appropriate protection of intellectual property (IP) to be held in US companies. The best hope for the US in space lies in opening up to the needs (and markets) of the entire world. Congress should declare its support for the general goals and plans of the Kalam

initiative, and make sure that the US strengthens its partnership with India, one of the most important emerging powers in the world today.

About the National Space Society (NSS): NSS is an independent non-profit educational membership organization dedicated to the creation of a spacefaring civilization. NSS is widely acknowledged as the preeminent citizen's voice on space, with over 50 chapters in the United States and around the world. The Society publishes *Ad Astra* magazine, an award-winning periodical chronicling the most important developments in space. To learn more, visit www.nss.org.