



It is a vital national imperative for the United States government to set our nation's space program on an ambitious, yet sustainable, path. Only by reaching consensus on our long-term goals in space, and the short-term steps needed to achieve those goals, can our nation reap the enormous technological and economic benefits of space and maintain our competitive edge among nations.

As February 2013 draws to a close, the specter of sequestration looms large. Sequestration was never meant to be, yet politics has brought it ever closer to reality. In terms of our nation's space programs, sequestration will have devastating effects, where funding for existing missions will be threatened; future missions will either be delayed, marginalized, or canceled outright; highly skilled jobs will be lost; and another generation of students will be dissuaded from pursuing careers in the sciences. Investment in our civil space program, which dollar for dollar brings enormous returns and leads to innovation, has been a driving force in American leadership, and will continue to be as long as funding is not curtailed. Even without sequestration, additional cuts to federal space budgets, over and above those already imposed, would pose grave challenges and would threaten our national security, our economic vitality, and our ability to compete globally and beyond.

With recognition of the economic times, the Space Exploration Alliance (the "SEA") is today reaffirming its longstanding and unwavering commitment to further space exploration and development, by calling on the executive and legislative branches of government to reach consensus on a unified and comprehensive human and robotic spaceflight program, one that will allow our nation to fully utilize the now completed International Space Station (ISS) and also to conduct missions of exploration beyond Low Earth Orbit (LEO). Our nation's leaders must continue to embrace the broad, bi-partisan support that led to the enactment of the NASA Authorization Act of 2010. Only by working together, and with NASA, can Congress and the Administration determine the best path forward relative to our civil space program. This includes (1) leveraging the necessary partnership between the public and private sectors relative to space exploration and development priorities and capabilities, (2) new uses of space to improve life on Earth, and (3) the utilization of the unparalleled expertise of our highly skilled work force.

SEA believes that in today's modern world, space is no longer just the next frontier that stands before us if we chose to go, as it was at the dawn of the space age fifty (50) years ago. In the modern world, space is no longer an option; rather, it is an imperative. Virtually every element of our civilization now depends on space capabilities. The United States, which today is being challenged in space by many other nations - economically, technologically, and strategically - needs a new call to action, one for the 21st Century. In order to maintain our leadership position in space, NASA and other key executive branch agencies must be given a specific set of bold and exciting directions, matched with adequate resources. In addition, the necessary launch and in-space infrastructure to reach our goals within a reasonable timeframe must also be established. A recent Mars Generation poll clearly shows that there is strong support in the U.S. for these types of aggressive goals in space exploration. In fact, seventy five (75) percent of respondents in that poll thought that the NASA budget should be increased to one (1) percent of the federal budget. Setting new goals for development of space capabilities to meet terrestrial needs is also widely supported. In order to achieve the necessary congressional and public support, we recommend that the U.S. space program be given the following definition and direction:

Space Flight Capabilities: It is critical that appropriate levels of funding for the timely development and/or human rating of the next generation of launch vehicles be provided as well as maintained. In the first instance, American access to LEO must be restored. In addition, the United States requires launch vehicles that have sufficient lifting capacity that will enable NASA to mount, along with the necessary in-space infrastructure and transport vehicles, crewed missions beyond LEO. Furthermore, policies must be established that will result in dramatically lower production, launch, and operating costs. The missions that these capabilities will be slated to accomplish must be identified, and sufficient funding must be provided to achieve those missions in a reasonable time. The designs should be mission-enabling and mission-enhancing, while at the same time focused on efficiency, affordability, safety, reliability, and sustainability.

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Private Sector: The United States now has to rely on and pay for the Russian Soyuz for crew access to the International Space Station (the “ISS”). Instead of sending millions of dollars overseas to launch American astronauts into space, the commercial launch industry must be given full support in its efforts to restore independent American crew access to the ISS. The SEA also supports efforts to update the Commercial Space Launch Act to provide the Federal Aviation Administration's Office of Commercial Space Transportation (AST) with the authority and funding to regulate on-orbit activities. The SEA further likewise supports an extension of the commercial launch indemnity regime beyond 2013. Commercial cargo/crew access to LEO would not only provide for full utilization of the ISS, but it will likely lead to significant reductions in launch costs. With the commercial launch industry providing this service, NASA would then be able to focus its resources on exploration beyond LEO. NASA also should be directed to offer a wider range of prizes for space-related accomplishments by the private sector. The private sector should also be enabled to provide other space services to meet government and private needs.

Timelines and Goals for Human Spaceflight: We believe that the United States should send humans to at least one intermediate destination **beyond low Earth orbit, such as an asteroid or the Moon, within the next 10 years, and that we should land humans on Mars by no later than 2030.** By doing so, the United States will continue to maintain its technological lead in human spaceflight, rather than abrogating that role to other countries that today have active human spaceflight programs and that seek to supplant the U.S. as the world's premier space-faring nation. The recent Mars Generation poll shows that over seventy (70) percent of Americans believe that the U.S. will land a crew on Mars by the early 2030s.

Leadership in Space Science: Our success in space science is without equal. Missions that have captured the imagination of the world and revolutionized our understanding of the universe have included the recent Mars rovers (**Opportunity, Spirit, and Curiosity**), the **Cassini** probe to Saturn, and the **Hubble Space Telescope**. We must not retreat from historic missions like these. Support for these missions, as well for the **James Webb Space Telescope**, will push the boundaries of knowledge and pave the way for human space exploration.

Advanced Technology, and New Applications to Improve Life on Earth: In 1962, President John F. Kennedy correctly acknowledged that going into space is hard. Going into space requires research and development of innovative and enabling technologies that will not only provide the means to explore and develop space, but it will also lead to the creation of new industries, markets, and jobs as well as to numerous and groundbreaking applications that will improve life on Earth. In order to accomplish our goals in space, NASA must be allowed to define and prioritize the most promising technology concepts to advance space exploration and development, such as **advanced propulsion, in-space refueling, energy production** (e.g. Space Solar Power), and **In Situ Resource Utilization (the utilization of indigenous resources on the Moon, asteroids, or Mars)**. In addition, space debris, planetary defense, and a legal regime are among the issues that must be addressed now that many nations are venturing into space along with us. Moreover, other executive branch agencies should be fully supported in their efforts to leverage space systems to accomplish their missions, especially those that use commercial space service providers.

Sustainability: Our future path in space, if it is to succeed, requires a sustained, generational commitment to NASA's long-term mission, and certainly one that transcends partisan politics and election cycles. It also requires incentives to increase private sector participation in all aspects of federal space activities and strong international partnerships. The space advocacy community acknowledges the financial constraints under which the U.S. government will be operating over the next few years and believes that tax dollars should be spent wisely. We look forward to continuing to work with Congress and the Administration to guarantee that the United States remains the leader in space exploration and development. As we lead the way into the solar system, new American growth industries will be spawned, **our nation's youth will be inspired to pursue careers in science, technology, engineering, and mathematics, and our country's economy will be re-invigorated.** The United States must not allow itself to be left behind.

The Space Exploration Alliance is a partnership of the nation's premier non-profit space advocacy organizations, which collectively represent the voices of thousands of people throughout the United States and from all walks of life. For more information regarding the Space Exploration Alliance, please visit www.SpaceExplorationAlliance.org