

Why Reach for the Moon and Mars?

“It is in some measure an act of faith and vision, for we do not know what benefits await us. But space is there, and we are going to climb it.”

- John F. Kennedy, 1962

For the knowledge: Human exploration of the Moon and Mars will open vistas of new knowledge. With the support of a human lunar base, we can establish astronomical observatories of unmatched power, making fundamental discoveries about the physical structure of the cosmos. Our robots have revealed that Mars was once a warm, wet planet, potentially friendly to life. By sending human explorers to the Red Planet to search for life or its remains, we can discover if the development of life is a general phenomenon in the universe, and determine if life as we know it on Earth is the pattern for all life everywhere, or if we are just one example of a much greater tapestry.

For the challenge: Societies are like individuals; they grow when they are challenged. A program to send humans to the Moon and Mars would be a bracing challenge, particularly to our nation’s youth. It would call out to every young person: “Learn your science and you can be a pioneer of new worlds.” As during Apollo, when such a call resulted in the doubling of the number of U.S. science and engineering graduates, this call to intellectual adventure would result in the production of millions of new scientists, engineers, inventors, doctors, and medical researchers—people whose inventions and discoveries would create new industries, strengthen our national defense, advance our health, and yield myriad other benefits on a scale that would utterly dwarf the expenditures on the program.

For the future: As John F. Kennedy said, human space exploration is “an act of faith and vision.” We Americans enjoy the freedom and prosperity we do today because our predecessors had the courage to risk life and treasure to open new frontiers for us. By reaching for the Moon and Mars, we are reaffirming our commitment to that pioneering and entrepreneurial spirit, a nation of hope dedicated to creating even better possibilities for our posterity. As was done for us, so we should do for the future.

The Issue at Hand

These are great benefits, and they are worth venturing much to achieve. But the issue at hand this year is **getting started**. The *Columbia* accident made clear that if we are to take the risks associated with human spaceflight, we should have a goal worthy of those risks. The Moon-Mars program provides such a goal. Some say that the program would be wasteful, but in fact it is activity done *without a goal* that results in waste. Some say that with all our other needs, the program is unaffordable, but in fact the administration is asking for a reasonable amount in new funds to begin planning.

We can do it. We should do it. The time to get started is now.

FOR MORE INFORMATION

- **Spin-offs:** To learn more about everyday technologies—in doctors’ offices, schools, homes and elsewhere—that resulted from America’s investment in space, visit NASA’s “Spin-offs” homepage.

<http://www.sti.nasa.gov/tto/>

- **Commission on Moon, Mars, and Beyond:** The final report of the “Aldridge Commission” outlines the key requirements for the new space initiative—sustainability, affordability, and credibility.

<http://www.moontomars.org/>

- **Columbia Accident Investigation Board:** The commission that investigated the *Columbia* accident found “a lack, over the past three decades, of any national mandate providing NASA a compelling mission requiring human presence in space.” The board recommended in its final report “that the White House, Congress, and NASA should honor the memory of *Columbia*’s crew by reflecting on the nation’s future in space and the role of new space transportation capabilities in enabling whatever space goals the nation chooses to pursue.”

<http://www.caib.us/>

SPACE ORGANIZATIONS

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| - Aerospace Industries Association | http://www.aia-aerospace.org/ |
| - Aerospace States Association | http://www.aerostates.org/ |
| - American Astronautical Society | http://www.astronautical.org/ |
| - American Institute of Aeronautics and Astronautics | http://www.aiaa.org/ |
| - California Space Authority | http://www.californiaspaceauthority.org/ |
| - Federation of Galaxy Explorers | http://www.foge.org/ |
| - Florida Space Authority | http://www.floridaspaceauthority.com/ |
| - Global Space Travelers | |
| - The Mars Society | http://www.marssociety.org/ |
| - Moon Society | http://www.moonsociety.org/ |
| - NASA Alumni League | http://www.policy.nasa.gov/prenal.html |
| - National Coalition of Spaceport States | http://www.spaceportstates.org/ |
| - National Space Society | http://www.nss.org/ |
| - The Planetary Society | http://www.planetary.org/ |
| - ProSpace | http://www.prospace.org/ |
| - ShareSpace Foundation | http://www.sharespace.org/ |
| - Space Access Society | http://www.space-access.org/ |
| - Space Generation Foundation | http://www.space-generation.org/ |
| - Space Frontier Foundation | http://www.space-frontier.org/ |
| - Space Studies Institute | http://www.ssi.org/ |
| - X PRIZE Foundation | http://www.xprize.org/ |