Why We Should Send a Manned Mission to Mars *

Mars has fascinated Earth-bound humans since prehistoric times, due to its captivating red hue and proximity and similarity to Earth. The romance of space travel and the exploration of new worlds is a major argument in favor of a manned mission to Mars. Supporters claim that exploring and colonizing the moon and Mars will give us a better understanding of our own home planet, Earth. Other supporters are motivated by feelings of national pride, saying the prestige of the United States is at stake. Still others believe that the research required by such a complex mission will help the United States retain its position as a leader in science and technology.

The success of the Apollo program in the 1960s and 1970s created a generation of astronaut heroes that inspired the nation. "In 1969, America sent men to the moon, not machines," Ben Wattenberg said on PBS's Think Tank. "[H]uman beings are exploratory creatures ... mankind needs big ideas and big projects to ennoble and inspire society. Don't our little boys and girls need heroes and heroines to say, 'Look at him, look at her, she's there'?" President George W. Bush once said in an address to the nation, "Mankind is drawn to the heavens for the same reason we were once drawn to unknown lands and across the open sea. We choose to explore space because doing so improves our lives and lifts our national spirit."

Many supporters of manned travel to Mars argue that because of its similarity to Earth, Mars offers opportunities to discover the origins of life and ways to protect the environment on Earth.

"We cling to the hope of a neighboring planet that harbors ... at least some primitive forms of life. If Mars contains even nanobacteria—or indisputable evidence of past life of the simplest forms—this will profoundly change our conception of our place in the universe," wrote Thomas Gangale. "If Mars is dead now, but was once alive, understanding how Mars died may give us a crucial understanding of how close we are coming to killing the Earth."

The Mars Society [a group that supports Mars exploration] shares that opinion. In its Founding Declaration, the society wrote, "As we begin the twenty-first century, we have evidence that we are changing the Earth's atmosphere and environment in significant ways... Mars, the planet most like Earth, will have even more to teach us about our home world. The knowledge we gain could be key to our survival."

And many scientists assert that the best way to attain that knowledge is with human scientists. "Robots can do a lot," Chris Welch, a lecturer in space technology at Kingston University, told the BBC. "But having multiple trained human beings there would tell us so much more." Dava Newman, associate professor of aeronautics at the Massachusetts Institute of Technology, agreed. "It's risky and it's also very costly, but there's just so much humans can do as explorers that we don't have any other way to accomplish."

China, Russia, and the European Union have all announced plans to boost their space programs in coming years, including sojourns to the moon and Mars. Some people believe it's essential to U.S. international status that the United States lead the way in space exploration. "Republican officials said conservative lawmakers who might balk at the cost [of a manned mission to Mars] are likely to be lured by the chance to extend the U.S. military supremacy in space when China is pursuing lunar probes and Russia is considering a Mars mission," Mike Allen and Eric Pianin wrote in *The Washington Post*.

The European Space Agency (ESA) has developed a long-term plan—known as Aurora—that will use robotics to first explore low-Earth orbit and then move farther out into planetary excursions, including Mars. The ESA intends to send a rover to Mars by 2009 and a manned mission to the moon by 2024 that will "demonstrate key life support and habitation technologies as well as aspects of crew performance and adaptation." The final step in the Aurora program is a human mission to Mars in the 2030s.

Regaining the top position in science and technology is another reason to support a Mars mission. According to *The New York Times*, the dominance the United States once had in science and innovation has declined in recent years as the number of international prizes and journal publications awarded to European and Asian researchers has increased. Jennifer Bond, vice president for international affairs for the Council on Competitiveness said, "Many other countries have realized that science and technology are key to economic growth and prosperity. They're catching up to us." She warned that people in the United States should not "rest on their laurels." A poll by the Associated Press seems to indicate that many people in the United States agree with her. Seventy-two percent of respondents in the poll deemed it important for the United States to be the "leading country in the world in the exploration of space."

"America is not going to remain at peace, and we're not going to remain the most prosperous nation, and we're not going to remain a free nation unless we remain the technological leader of the world," said Representative Dana Rohrabacher, chairman of the House Subcommittee on Space and Aeronautics. "And we will not remain the technological leader of the world unless we are the leaders in space."

^{*}Adapted from Joulwan, Melissa. "You Decide: Manned Mission to Mars." 13 May 2004 KOED 13 May 2004. 10 June 2004 jhttp://www.kqed.org/topics/news/perspectives/youdecide/pop/mars/indexjsp?flash=true¿.