

SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT (D3)

Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and Development (1)

Author: Mrs. Elizabeth Blome
NASA, United States

PARTNERSHIPS AND FUTURE OF NASA

Abstract

Background: During the 1960's, NASA funding was approximately 5% of the U.S. federal budget and the agency had a clear goal of landing on the moon within the decade. Fifty years later, the agency's funding is approximately 0.5% of the U.S. federal budget and the goal varies, depending on which political party is in the White House. How can NASA, given the financial and political realities of 2015, move beyond low Earth orbit and meet its strategic goals:

- Expand the frontiers of knowledge, capability, and opportunity in space
- Advance understanding of Earth and develop technologies to improve the quality of life on our home planet
- Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure

Solution: The answer is partnerships. As mandated by the National Space Policy set in 2010, "a robust and competitive commercial space sector is vital to continued progress in space". The United States is committed to encouraging and facilitating the growth of a U.S. commercial space sector that supports U.S. needs, is globally competitive, and advances U.S. leadership in the generation of new markets and innovation-driven entrepreneurship. NASA has been actively encouraging the commercial space sector, as evidenced by the commercial cargo and commercial crew efforts.

This paper will discuss how partnerships have become a more integral part of the journey to Mars as NASA continues to lead human space exploration. The current budgetary and political reality requires that partnerships be a key component of moving beyond Low Earth Orbit. This paper will discuss the challenge of finding innovative partnerships that take advantage of the capabilities of the growing commercial space market. Challenges include identifying specific technological needs, recognizing the growing expertise and desires of commercial space to move beyond Low Earth Orbit, incorporating commercial partners into the Mars Roadmap, and working with international partners.

Applicability: NASA's strategy is designed to position the U.S. for future roles in space, in Low Earth Orbit and beyond. The natural synergies between NASA, commercial space companies, and international space agencies can be leveraged for the mutual benefit of all.