

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Governmental Human Spaceflight Programs (Overview) (1)

Author: Mr. Joel Montalbano
United States

Mr. Kirk Shireman
NASA Johnson Space Center, United States

Mrs. Kathy Laurini
National Aeronautics and Space Administration (NASA), United States

THE BENEFITS OF MAINTAINING INTERNATIONAL SPACE STATION OPERATIONS WHILE
STARTING SUSTAINABLE HUMAN EXPLORATION BEYOND LOW EARTH ORBIT

Abstract

As the International Space Station (ISS) approaches its 19th birthday, NASA and its international partner space agencies are laying the groundwork for the next step in human space exploration: beyond low Earth orbit. These exciting missions, realized in partnership, will see human activity in cislunar space to accomplish a range of objectives which benefit life on Earth. The infrastructure envisioned by ISS partner space agencies will open up the solar system to sustainable human exploration of the Moon, asteroids and Mars. It may also support private sector initiatives and public private partnerships which advance a broader set of objectives. The architecture concept advanced by the ISS Partners builds on ISS lessons learned and benefits significantly from research and other activities onboard the ISS. These exploration enabling activities are essential building a sustainable human exploration endeavor as they lead to an understanding of human exploration risks and provide the chance to demonstrate capabilities which will manage the new risks. It is essential to keep the ISS operational as missions beyond low Earth orbit are starting. This paper will describe the planning for the next step in human space exploration, and show the importance of keeping the ISS operational for technical and programmatic reasons. It will describe past experience and current considerations, learning lessons from the past. Specific recommendations and benefits will be described.