

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

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BEYOND THE INTERNATIONAL SPACE STATION

Abstract

There are many challenges that the human spaceflight community face regarding the destiny of low-Earth orbit (LEO) and the International Space Station (ISS), as well as our next steps beyond LEO into cislunar space. Among the policy challenges is the transition of the private and government-led research and technology development activities from the ISS to the next platform. Also of significance is the ISS International Partnership and how it relates to this transition in LEO and to the next steps beyond LEO. This paper will address these issues in the context of NASA's current policy and programmatic framework, including 1) utilizing the ISS to perform human health and performance research and demonstrate Mars-capable life support, environmental monitoring, EVA, and other critical habitation systems; 2) demonstrate short duration habitation and transportation in cislunar space; and 3) validate long duration habitation in cislunar space in preparation for human missions beyond the Earth-moon system on the way to Mars.