

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

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ISS, SLS, ORION: INTO THE PROVING GROUND

Abstract

Although the U.S. Presidential administration has changed, NASA's commitment to extend human presence into deep space has not. This paper will discuss the current strategy for human spaceflight, to include 1) utilizing the International Space Station (ISS) to advance human exploration and return benefits to Earth; 2) researching advances on the human body and mind, and developing systems to prepare for deep space travel independent of the Earth; 3) partnering with private industry on the commercial resupply service to the ISS, and extending those partnerships to cis-lunar space and other exploration objectives; 4) building the Deep Space Exploration System (SLS and Orion); 5) and continuing work in the proving ground of space around the moon. Ultimately, this activity results in a deep space infrastructure consisting of a) a cis-lunar transportation and operations portal that can be used for human lunar activity and as a deep transportation stepping-off point, and b) a human-rated deep space craft capability of repeated journeys beyond the Earth and moon system. This reusable infrastructure will be developed by private sector and international partnerships. This comprehensive overview of NASA's human spaceflight strategy will connect our current achievements in space to our future goals by discussing specific exploration capabilities we will demonstrate and validate in low Earth orbit and in the proving ground of cis-lunar space.