

SPACE LIFE SCIENCES SYMPOSIUM (A1)

The International Space Station in LEO and the Deep Space Habitat in Cis? Lunar Space as platforms for simulated Mars voyages (4)

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Abstract

The International Space Station (ISS), now approach nearly 17 continuous years of human occupation, is continuing to expand the boundaries of humanity's ability to live and work off the Earth. The ISS is a key component in NASA's exploration journey beyond low earth orbit into cislunar space and onto Mars. By using the ISS, which is in continuous communication with the Earth and only hours or days away from resupply or return, as a technology development testbed, NASA is improving and innovating on key exploration technologies such as environmental control and life support, power generation, radiation protection, extravehicular activity capabilities, and communications. As NASA develops this deep space architecture, it will continue to rely on the support and expertise of the ISS International Partnership that has endured for more than two decades. The International Partnership- Canada, Europe, Japan, Russia, and the United States- is perhaps the ISS's most enduring global legacy, and will continue be critical both in low Earth orbit and in the transition to missions ever further from Earth.