SPACE EXPLORATION SYMPOSIUM (A3) Space Exploration Overview (1)

Author: Mr. Samuel Ximenes Exploration Architecture Corp (XARC), United States

A SCENARIO FOR AN INTERNATIONAL PARTNER PARTICIPANT TO PROVIDE A HABITATION MODULE TO AUGMENT NASA'S LUNAR SURFACE HABITATION CAPABILITY

Abstract

This paper addresses a strawman scenario for how an International Partner organization would integrate its exploration goals into the mission timeline of the NASA Constellation Program (CxP) for a planned Lunar Outpost. The paper uses the example of an International Partner provided habitation module for augmented habitation capability for lunar surface operations. Technical and programmatic considerations are discussed, and the significant challenges are identified within the framework of a conceptual Lunar Outpost mission profile sequence for a permanent human presence buildup and International Partner habitation module integration. The paper illustrates how to progress International Partner provided elements from a Level II baselined concept Design Reference Mission to baselined Level II/III elements within the CxP by reaching system SRR milestones and completing all required Level II/III technical document updates.