

HUMAN EXPLORATION OF THE MOON AND MARS SYMPOSIUM (A5)
Long Term Scenarios for Human Lunar Presence (2)

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HUMAN LUNAR EXPLORATION: INTERNATIONAL CAMPAIGN DEVELOPMENT

Abstract

The International Space Exploration Coordination Group (ISECG) has been working in a coordinated, multi-lateral fashion to develop a point-of-departure architecture for a human campaign to explore the Moon. This architecture builds upon the “Global Exploration Strategy (GES): The Framework for Coordination” document (published in 2007) to identify an approach for implementing a sustained campaign of human exploration of the Moon. The resulting product describes the types of missions required, the sequence to perform them, the type of hardware each mission might deliver to the Moon, and key operations aspects that enable the overall campaign to succeed. The campaign has been evaluated against a list of 15 common goals identified by the ISECG working groups.

To perform this activity, the ISECG formed an International Architecture Working Group (IAWG) with the responsibility of coordinating the various elements. The IAWG in turn formed multiple ‘function’ teams, who were given the responsibility of defining capabilities that could be used in human exploration. Function teams included areas such as human habitation, mobility, communications, in-situ resource utilization, servicing, and transportation (to and from the Moon). In addition to the function teams, a campaign integration team was formed to integrate the various products together, develop tools for analysis, and ensure that the resulting series of missions were both technically feasible and capable of meeting specific goals or objectives. This paper describes how this international community, with representation from multiple space agencies, worked together to develop and refine this complex set of material into a cohesive campaign.