Paper ID: 65673
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IAF SPACE EXPLORATION SYMPOSIUM (A3)
Moon Exploration – Part 3 (2C)

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DISTRIBUTED NETWORK OF TECHNICAL CAPABILITIES AS A PHASE OF INTERNATIONAL INFRASTRUCTURE DEVELOPMENT FOR MOON EXPLORATION

Abstract

An increasing number of space agencies consider Moon exploration objectives as a part of national space program.

Most of the agencies have a consistent position and express interest in coordination of lunar programs with international partners. Advantages include higher efficiency, program sustainability, redundancy and opportunities for costs and risks sharing.

Within national programs, there are technical capabilities under development. The capabilities have different design and points to be placed on the surface and around the Moon.

Advantages of the international cooperation, when the capabilities have different design and utilization objectives, can be achieved through development of an integration approach. An example is a distributed network of technical capabilities as a phase of international infrastructure development for Moon exploration.

Payload requirements analysis at this phase, navigation and communication services for lunar capabilities integration are the subject of this paper.