Paper ID: 55967

International Cooperation for Space Exploration (1)

International Cooperation for Space Exploration (2) (2)

Author: Mr. Dmitry Zarubin
Moscow Aviation Institute (National Research Institute, MAI), Russian Federation, zarubinds@gmail.com

Mr. Nikolay Sevastiyanov S.P. Korolev Rocket and Space Corporation Energia, Russian Federation, irina.agapova@rsce.ru

MOON EXPLORATION AS THE ISS PROGRAM EVOLUTION

Abstract

Since 2011 the ISS-partner space agencies working groups as well as International Space Exploration Coordination Group (ISECG) have been working on the international initiatives and space exploration program concept, which is based on the ISS partnership, achievements and collaboration experience.

By the 2018 the ISS-partners have developed the concept of international man-tended (transit) station in Lunar vicinity. The station also became a part of the ISECG 3-d Global Exploration Roadmap. The concept allows to propose approaches for appropriate level of redundancy and program robustness.

The basis is the ISS program approaches, which have a proven effectiveness.

The main approaches are modular construction, two-segment configuration and international program framework.

This report reviews these aspects in more details giving the examples from the ISS experience. It shows the difference between the ISS and a cis-lunar station from the perspective of station configuration and program.