## HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM (A5) Joint session on Human and Robotic Partnerships to Realize Human Spaceflight Goals (3-B3.6)

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## NEW TECHNOLOGIES OF MOON EXPLORATION BY HUMAN AND ROBOT

## Abstract

Traditional methods for the study and exploration of the Moon can be reduced to the implementation of the proposals missions apart - or robotic (without human intervention) or manned. This leads either to ensure that the results obtained from these missions are, on the one hand, private (local) character. On the other hand, the results in the case of manned missions costing organizers missions quite expensive. The paper examines the concept of large-scale exploration of the moon at the same time and with the participation of human and robot. We consider several scenarios implementation of such complex missions. Author proposed range of robotic and manned assets, which allows realizing the proposed concept, the basic requirements for these facilities. It is shown that the proposed concept allows to implement a program of study and exploration of the moon on a new level, has a number of important advantages with respect to the separate program of automatic and manned missions. In particular, the implementation of the proposed technology results obtained during missions to the Moon will be comprehensive in nature, and the efficacy and safety of manned missions to grow substantially.

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