

HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM (A5)
Human Exploration of the Moon and Cislunar Space (1)

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A RESEARCH ON EVALUATION SYSTEM FOR SITE SELECTION OF MANNED LUNAR BASE

Abstract

The evaluation elements for site selection of manned lunar base were researched and analyzed. The evaluation elements were divided into five categories, including scientific objectives, commercial demands, technology demonstrations for deep space explorations, engineering constraints and lunar resources. A evaluation system was built based on the elements to quantitate the adaptability of the potential site for manned Lunar base. Two typical regions locating in the areas of lunar equator and lunar pole were analyzed and scored using the evaluation system. And a primary suggestion was given that Shackleton Crater or other pole sites were capable for manned lunar base . The results could be used to set up the evaluation system for manned base site selection on other planets like Mars as reference.