SPACE EXPLORATION SYMPOSIUM (A3)

Moon Exploration – Part 3 (2C)

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DESIGN FOR THE FUTURE: FLEXHAB, THE FUTURE LUNAR EXPLORATION HABITAT AT ESA

Abstract

In the future, humans will live in more hostile environments, for example as a result of increased desertification on Earth or following the establishment of habitat settlements in Space. To prepare for this contexts, the European Space Agency (ESA) is now looking into developing a Moon analogue mission facility where to test future technologies, architectures, design, services, etc. In order to increase the feasibility of such a project in the present time, one strategy may be to create a project habitat with restricted cost and volume that could be built using the current launch technology. This work addresses the design of the Future Lunar Exploration habitat (FLEXhab) for the next Moon analogue facility at the ESA Astronaut Training Centre (EAC).