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Contribution of Moon Village to Solving Global Societal Issues (2)

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INITIATIVE TO IMPROVE ANALOG SPACE MISSION PROJECTS.

Abstract

Thanks to space exploration, several advances in science and technology have been achieved that benefit today's society. For many space missions, large amounts of technology have been developed with high quality standards, anticipating being deployed in hostile and inhospitable environments such as space. But before getting there, the different systems, prototypes or protocols are subjected to special tests or training, which help to predict some of their behaviors, minimize risk factors and favor the success of the missions for which they were created.

Analogous habitats have been used in the past as training spaces for space missions, in which certain conditions similar to those expected off the planet are available, and even, in some circumstances, the more austere the better. But the development and progress of science and technology, as well as information technologies, have favored the improvement of many projects today, facilitating tasks, reducing costs, or achieving a greater scope of investigations thanks to the information networks that can be created. And analogous habitats, are not exempt from all this.

In this article, different improvements applied to analogous habitats are proposed as an initiative to favor the practice in various types of space missions, taking into account prolonged stays, considering the physical and emotional well-being of the human being, different EVAs practices, specific research projects, such as space medicine or agriculture, as well as processes or new protocols proposed for missions, where disruptive technologies can be used, such as virtual reality.

All this, mainly focused on providing better tools for this type of practice and facilitating the development of similar space missions, directly benefiting various institutions in the research and development of the space sector. As a secondary part, but also very important, it seeks to increase the involvement of society in the analog space activities, increasing their scope, taking advantage of different resources, as well as favoring various academic programs, achieving a greater scope of this type of practices.