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THE GLOBAL ANALOGUE MISSION

Abstract

Analogue missions are human activities carried out in extreme, isolated and confined environments. Such missions focus on replicating part of a crewed space mission complexity for understanding critical aspects of a possible future scenario in space. The scientific community agrees that analogue missions are essential platforms for producing data needed for identifying risks of long-term exposure to outer space. Yet, the scientific value of such missions can further be improved. Analogue missions could also be used as platforms to anticipate problems of the socio-economic context in which future crewed missions will be carried. Indeed, the fidelity of a mission shall not be limited to the activities carried within a mission and shall be extended to those carried out in support of the execution of the same. In contrast to standard mission designs, the Global Analogue Mission (GAM), run by the Space Exploration Project Group of the Space Generation Advisory Council, aims at increasing the realism of a mission by simultaneously implementing current efforts at the global level and the crew level. The GAM is designed to bring disruptive innovation by allowing the implementation of decisions made in space laws, space economics, international relations and more, in addition to those with direct impact on the crew such as health and safety. By simulating a case scenario of a possible future, the significance of GAM lays on five purposes (autonomy, humanity, diversity, globality and multidisciplinary) that are currently not included in simulated human activities. The GAM consists of five crews who jointly simulate a scenario where crews interact for carrying activities towards the establishment of permanent human presence on celestial bodies (such as extracting natural resources). Here, crews include crew-members who cannot keep high performance over time as a result of the long-term exposure to outer space or accidents. Such context is to raise debate and awareness about the current state of human exploration of space for understanding the validity of current efforts when dealing with implementation. International space Actors shall see the GAM as a neutral platform for building inclusion, integration, interaction and decision making.