

IAF SPACE OPERATIONS SYMPOSIUM (B6)  
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ANALOGUE THINK TANK

**Abstract**

Activities conducted in analogue missions and analogue fields have broader variabilities. There are no universal guidelines on how to design and run an analogue mission, and participants are free to follow approaches different from those used by space agencies. Consequently, many improvise organization and adopt personal metrics for setting safety without even realizing possible consequences. The lack of universal policies enabling multilateral cooperation and interoperability is one reason for promoting several variabilities in the three main aspects of the mission design: science, implementation, and operational value. The scientific community may help to improve just the scientific aspect until the impact of the mission design is deemed not a priority. Spaceflight operations are addressed towards implementation in outer space, while analogues run several studies for scientific purposes. When implementation comes with operations, scientists will include aspects arising from the interdependence of multiple studies. For example, sample collection procedures should account for the accumulated workload and stress. A policy environment, built on space law and international legislation, may drive analogues in a way that scientific efforts cannot, conferring them an operational value that would bring benefit to space agencies and private companies. Instead, safety would still be open to interpretation due to the lack of an entity mediating the implementation of the right of health, like space agencies do for human missions. This paper reports effort in identifying solutions to existing gaps for increasing the validity and reliability of any type of analogue scenario. The goal is to establish universal guidelines as the first step towards interoperability.