

IAF SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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PLANETARY PROTECTION: UPDATES AND CHALLENGES FOR A SUSTAINABLE SPACE  
EXPLORATION**Abstract**

A Planetary Protection Policy [1] has been developed by the Committee on Space Research (COSPAR), which provides a forum for international consultation in the area of space research. The COSPAR Planetary Protection Policy, and its associated requirements, is not legally binding under international law but is an agreed standard with implementation guidelines for compliance with Article IX of the Outer Space Treaty. States Parties to the Outer Space Treaty are responsible for national space activities under Article VI, including the activities of governmental and non-governmental entities.

The current members of the COSPAR Panel on Planetary Protection (PPP) are representatives from national space agencies and thematic experts from the science community of different countries (<https://cosparhq.cnes.fr/scientific-structure/ppp>). Other stakeholders, including the private sector, are invited to attend and present at the meetings.

The main goal of COSPAR's Planetary Protection Policy is to avoid compromising the search for extraterrestrial life and protect the Earth from the potential hazard posed by extraterrestrial matter carried by a spacecraft returning from an inter-planetary mission. [1,2]. The COSPAR Planetary Protection Policy has five different categories, depending where a specific space mission is going and what the mission objectives are. Associated to these five categories are requirements with various degrees of stringency. The COSPAR PPP [2] maintains and updates the COSPAR Planetary Protection Policy regularly, always reviewing all available scientific knowledge leading to updates to the policy, in particular as concerns the outer solar system and lunar exploration [3,4].

Such updates are performed in a careful and balanced way to ensure that the right measures are envisaged to fulfil the rationales for planetary protection. The purpose obviously is to respond to the needs of space missions, while applying due diligence and expertise in the process to ensure a safe and sustainable exploration of the solar system.

## References :

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3. L. Fisk, J-C. Worms, A. Coustenis, N. Hedman, G. Kminek 2020: Introduction and the new COSPAR Policy on Planetary Protection. Space Res. Today 208, August 2020, Pages 10-22. <https://doi.org/10.1016/j.srt.2020.07.009>.
4. Fisk, L., Worms, J.-C., Coustenis, A., Hedman, N., Kminek, G., et al., 2021. Space Res.Today 211, 9-25 <https://doi.org/10.1016/j.srt.2021.07.010>