Committee on the Peaceful Uses of Outer Space
Legal Subcommittee 64th session (5-16 May 2025)

Agenda Item 3: "General Exchange of Views"

Observer: Committee on Space Research (COSPAR)
Statement by Mr. Niklas HEDMAN, COSPAR General Counsel

Mr. Chair, Distinguished Delegates,

Founded in 1958, COSPAR through its Scientific Assemblies, Symposia, commissions, panels, roadmaps, and publications, actively fosters sustainable exploration and use of outer space. COSPAR has a longstanding partnership with the Committee on the Peaceful Uses of Outer Space (COPUOS), becoming its first permanent observer in 1962. We are proud of having concluded recently a new cooperation agreement with the Office for Outer Space Affairs (UNOOSA).

Mr. Chair, Distinguished Delegates,

The search for both existing and extinct life within our Solar System and beyond has been a primary motivation for space exploration since its early days. Exploration beyond Earth has focused on neighboring planets, which could have benefitted from favorable habitable conditions in the past, for example Venus and Mars. It has been demonstrated, however, that runaway greenhouse effects have destroyed any viable environment on Venus today. Mars, on the other hand, because of the interest in finding past life there, is a continued prime target for space exploration missions.

Furthermore, data suggests that some of the moons of the gas giants Jupiter and Saturn harbor water oceans under their icy crusts, which in the case of Europa and Enceladus, may be in direct contact with a silicate mantle floor, as on Earth and kept warm through time by tidally generated heat. Further, the icy worlds of Titan and Enceladus have organic chemistries with complex organic compounds detected in the plumes of Enceladus and in Titan´s thick atmosphere, suggesting potential conditions for prebiotic chemistry and the building blocks for life.

In the post-Apollo era, the first analyses of the samples returned indicated that the Moon was too dry for any biological activity or even for prebiotic chemistry. Nevertheless, the Moon offers unique opportunities to study the Earth-Moon history, the geologic processes within, while also being an object of exceptional interest with features such as its exosphere, the polar regions, and a chance to perform astronomic observations.

Even as recently as 2020, observations of the Moon revealed an emission feature at high southern latitudes due to the presence of molecular water in the Moon's southern hemisphere. These regions have relevance to the broader Solar System science as analogs for volatile and

water availability in comets, asteroids and other small bodies, and for the formation of inner planets in our Solar System and beyond.

Mr. Chair, Distinguished Delegates,

Against this background, the COSPAR Panel on Planetary Protection (PPP), and its predecessors, have for many decades upheld the principles of the Outer Space Treaty of 1967, advising on the avoidance of organic-constituent and biological contamination introduced by planetary missions. The membership of the Panel on Planetary Protection comprises representatives of twelve Space Agencies and an equal number of independent scientific expertise. This is the only international mechanism set up in response to the call in OST Article IX for appropriate measures against forward and backward contamination.

The Panel maintains the COSPAR Policy on Planetary Protection, a voluntary non-legally binding standard for the reference of spacefaring nations to guide compliance with the Outer Space Treaty under the Policy objective that the scientific investigation of the process of chemical evolution and/or the origin of life must not be compromised, and that the Earth must be protected from the potential hazard posed by extraterrestrial matter carried by a spacecraft returning from a planetary mission.

In March 2024 the COSPAR Bureau approved a new modernized version of the Policy developed by the Panel. The new Policy comprises recent updates to the guidelines for the Moon and the icy moons and is extensively restructured and edited to enhance coherence, consistency, and better understanding of its target body categorization and corresponding requirements for the benefit of entities conducting activities in outer space. The new Policy was published in the COSPAR journal *Space Research Today* in July 2024. Comprehensive information about the Panel and the Policy are available in numerous recent publications and at the COSPAR website: https://cosparhq.cnes.fr/scientific-structure/panels/panel-on-planetary-protection-ppp/

Thank you for your attention.