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## PLANETARY PROTECTION IN THE NEW SPACE ERA: LAW AND POLICY CHALLENGES

## Abstract

COSPAR's planetary protection policy is one of the oldest elements of the space governance regime. It is highly regarded and has influenced the development of NASA and ESA's own planetary protection policies. However, it is not binding international law. It is a so-called 'soft law' instrument which provides guidance for behaviour without a corresponding obligation to adhere to it. The Outer Space Treaty (OST) of 1967 is binding international law and provides the foundational framework for the space governance regime, at least in its obligatory capacity. However, while Article IX OST does stipulate that States should avoid the 'harmful contamination' of outer space, the Moon, and other celestial bodies, this does not 'codify' the COSPAR planetary protection policies. Therefore, while States have an obligation to ensure that the activities of their nationals are conducted in conformity with the provisions of the Outer Space Treaty and other aspects of binding international space law (Article VI OST), that obligation does not extend to ensuring compliance with the COSPAR planetary protection principles. To date, this has generally not been an issue as the virtually the entirety of private activities (with the notable exception of Beresheet and SpaceX's Tesla launch) have been conducted in Earth orbit and thus posed no planetary protection risk. However, as there is growing interest in private missions beyond Earth orbit it is time to reconsider this. While the COSPAR guidelines provide an excellent technical basis for planetary protection the challenge is to ensure their implementation. This paper will explore the mechanisms, and provide recommendations, for doing so.