

## Legal Issues Related to Space Exploration (13)

Present and future regulation of space exploration and exploitation: general issues (1)

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EXTENDING THE OUTER SPACE TREATY: PROTECTING PLANETARY ENVIRONMENTS  
WHILE ENABLING COMMERCIAL USE OF OUTER SPACE**Abstract**

One of the more optimistic trends in space flight and exploration is the emergence of non-State Parties with significant capabilities in space exploration and use. This trend is essential to the development of a true space economy, and is compatible with the policies of numerous space agencies. With the rise of other actors in outer space, the legal and regulatory regimes associated with the use of other planetary environments must be anticipated. Today, non-State Parties launching from a State signatory to the 1967 Outer Space Treaty are subject to the Treaty's articles, though it is clear that different launching venues differ greatly in the specifics of their implementation and enforcement of the Treaty. Such differences, in the face of commercial advantage, could lead to "venue-shopping" for launch sites, and could result in improper enforcement of the Treaty provisions, leaving protections against "harmful contamination" of other planetary environments poorly defined. In anticipation of future expansion of planetary exploration and use it is time to consider steps to be taken to clarify and complement the legal regime affecting the exploration of the Moon and other celestial bodies. Recent workshops held under the auspices of COSPAR and a recent report from the IAA ("Protecting the Environment of Celestial Bodies") have called for specific measures to be taken to protect outer space environments needing such protection, and by extension, the definition of environments suitable for commercial use. The development of new and specific management guidelines and regulations for environmental protection is needed to supplement the accepted regulations for preventing harmful planetary contamination of a biological or organic-chemical nature. There appear to be numerous approaches for the development of such an international framework that would take the next steps in protecting extraterrestrial environments to support a future era of exploration, commercialization, and human habitation. One effective approach may be to further define the provisions of Article IX of the 1967 UN Space Treaty through the establishment of an intergovernmental technical panel or panels (cf., the Intergovernmental Panel on Climate Change [IPCC] and the Intergovernmental Panel on Biodiversity and Ecosystem Services [IPBES]), coupled with the establishment of an enforcement body focused on the principles and mechanisms of the 1967 Space Treaty. Such an arrangement could be the focus of a subsidiary agreement that would provide international agreement on a specific regulatory regime (e.g., a 'Convention on Space Environmental Protection') to supplement the existing Treaty.