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## SPACE LAW - FUTURE CHALLENGES AND POTENTIAL SOLUTIONS

**Abstract**

Article IX of the Outer Space Treaty gains significance in light of a growing number of outer space missions, thereby increasing the possibility of forward and backward contamination that the provision seeks to prevent. Yet, the scope and ambit of Article IX remains ambiguous at best, thereby posing a major challenge to space law especially in the near future which marks the return of sending biological organisms and even humans to space. As an illustration, the Phobos Grunt Mission launched by Roskosmos is carrying, *inter alia*, hardware to transport samples of a variety of dormant *biological organisms* beyond the Earth's orbit. This paper attempts to provide an interpretation of Article IX of the Outer Space Treaty as a potential solution to this challenge. Article IX mandates States to undertake 'appropriate measures' to prevent contamination of the environment of the Earth and outer space. However, definition of these 'appropriate measures' remains unclear as the text and the drafting history of the treaty provide no indication. Thus, the paper deals with two pertinent aspects of the interpretation of Article IX: *first*, the nature of "appropriate measures" to be taken by a space agency to fulfil the requirements of Article IX and *secondly*, which state in an operation involving multiple space agencies has *that obligation*. *First*, it is submitted that the 'appropriate measures' are the guidelines laid down in the planetary protection policy adopted by the Committee on Space Research ["COSPAR"]. Hence, the policy is binding on space agencies. The basis for this obligation arises from the interpretation of Article IX using the test of 'subsequent practice' as laid down in Article 31(3)(b) of the Vienna Convention on the Law of Treaties. All space missions, as elucidated in the paper, launched in outer space till date have claimed to follow the policy. Other instances of state practice have also been analysed. *Secondly*, the paper addresses the question of *which State* is obligated, under Article IX, to take these 'appropriate measures'. Today, most missions involve more than just one State and even private corporations. This poses a challenge to space law as the treaty regime is mainly state-oriented. In such a scenario, it is submitted that the space agency having the 'effective link' with the mission is obligated to ensure that the policy is followed for all component parts of the mission.