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FROM ANTARCTICA TO THE OPEN SEAS : GUIDELINES FOR REGULATING COMMERCIAL
SPACE ACTIVITIES BASED ON TERRESTRIAL FRAMEWORKS

Abstract

The intent of returning to the lunar surface and establishing a sustainable human presence there has reached unprecedented levels of momentum, largely due to the United States' Artemis program. Central to this campaign has been the proposal of the Artemis Accords, principles that aim to enhance the governance of civil space exploration on the Moon and beyond.

The Accords are an anomaly in space policy. Historically, regulations have struggled to keep pace with the technological developments in space, often created to remove barriers than to anticipate future needs. An apparent example of this can be found in commercial space. The current international standard, the Outer Space Treaty (OST) of 1967, makes no mention of private entities, as they did not have independent space-faring capabilities at the time. This has largely changed today. Not only are these entities now capable of launch and exploration, they are also at the forefront of in-situ resource utilization. Thus, regulatory oversight is essential to ensure long-term sustainability. Present day responsibility to govern these private players in space lies with their respective nations. This results in a general lack of consistency amongst domestic laws. It is also important to recognize the conflict of interest in this scenario, where reduced regulatory oversight may equate to economic and industrial progress in that country.

This paper explores the regulatory frameworks of other global commons, particularly the Antarctic Treaty and the United Nations Convention on the Law of the Sea (UNCLOS), to address the existing gaps in the commercial space domain. Both the above-mentioned agreements are broadly accepted, and indirectly applied to private entities. One key use case examined in this research is regulations on oil and gas giants during offshore drilling activities. These provide groundwork for future lunar and asteroid resource utilization policies. The comparative analysis highlights the concept of UNCLOS defined Exclusive Economic Zones (EEZ), which echo familiarity to the Accords-proposed lunar "Safety Zones". Another prong of this work garners inspiration from the Protocol on Environment Protection to the Antarctic Treaty. This Protocol regulates human activities in Antarctica, minimizing environmental harm and shaping scientific and tourist operations on the continent. Protocol articles on responsible waste management, authorized environmental impact assessments and liability for environmental damage are highly applicable to a space context. Overall, this paper discusses guidelines for future commercial policies, making comparisons between other global commons and the celestial realm when applicable, and drawing nuances when not.