Foreword
A Global Shift in Space Governance

INTRODUCTION

The global space ecosystem is experiencing an unprecedented revolution, largely driven by the emergence of New Space. This term refers to the new wave of commercial space activities spearheaded by private companies, which have introduced innovative technologies, reduced costs and increased the accessibility of space. New Space has transformed the space industry, once dominated by government space agencies and traditional aerospace companies such as Boeing, Lockheed Martin and Arianespace, into a competitive market where private entities play a central role. New Space began in the United States (U.S.), where companies including SpaceX, Blue Origin and others pioneered advancements in space launch technologies, satellite communications and human space flight. These private actors, supported by public–private partnerships, have reduced costs and accelerated access to space, making space activities more attractive to private investment. The success of New Space in the U.S. has prompted other nations and regions to follow suit. Europe, where the private sector has been encouraged by new space policies, China, with its expanding commercial space industry, and nations such as India and Japan, have also embraced this trend. The global expansion of New Space marks a new chapter in space exploration and utilisation, but it also challenges the international legal framework governing outer space, as the traditional space law framework, designed to regulate state actors, is now being applied to private enterprises engaged in space activities.

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LEGAL FRAMEWORK AND STATE RESPONSIBILITY IN SPACE ACTIVITIES

Space activities remain tightly regulated under international law, particularly by the Outer Space Treaty of 1967. Despite the impression of legal disorder brought about by the rapid expansion of New Space, the sector continues to operate within a well-established legal framework that places the State at the centre of space governance. The Outer Space Treaty provides the foundational principles governing outer space. Several key articles in the treaty directly relate to private space activities and the responsibilities of states.

Article VI of the Outer Space Treaty establishes that states bear international responsibility for national space activities, regardless of whether they are conducted by governmental or private entities. This means that even if a private company conducts space operations, the state under whose jurisdiction the company operates is responsible for ensuring that these activities comply with international law. States must supervise and regulate private space activities, which has led to the adoption of national space laws and authorisation regimes to ensure adequate oversight of the private sphere.

Article VII extends state liability to damage caused by space objects. The launching state is internationally liable for any damage caused by objects launched into space, regardless of whether the operation was conducted by a government agency or a private entity. This principle ensures that states remain accountable for the actions of their private operators in space.

Article VIII establishes that the state which registers a space object retains jurisdiction and control over the object in space. This ensures that the state applying for the launch remains responsible for the space object, and its legal and regulatory framework governs the object.

These articles collectively ensure that, while private actors can operate in space, states remain responsible for supervising and controlling their activities. Many countries have introduced national space laws that require private companies to obtain authorisation before engaging in space activities, to ensure compliance with international obligations.

THE LEGAL DISARRAY OF NEW SPACE AND THE NEED FOR AN UPDATED FRAMEWORK

While the international legal framework under the Outer Space Treaty provides a solid foundation for the regulation of space activities, the rapid expansion of these activities, particularly through New Space, has created legal uncertainties that must be addressed. Developments such as the proliferation of satellite constellations, CubeSats, and the prospect of resource exploitation on celestial bodies have created complex legal challenges.

With the surge in the number of satellites, especially mega-constellations like SpaceX's Starlink, concerns about space debris, collisions and radio frequency interference have grown. Moreover, the lack of comprehensive international regulations to manage space traffic and prevent collisions between objects in orbit poses a risk to the sustainability of space activities. Space traffic management (STM) is an emerging field requiring international coordination to prevent space congestion and mitigate the creation of debris.

The legal regime surrounding the exploitation of resources from celestial bodies, such as the Moon or asteroids, is another area of contention. The Artemis Accords, signed in 2020, led by the United States, aims to promote international cooperation in the exploration of celestial bodies and resource utilisation. These agreements are seen by some as conflicting with the 1979 Moon Agreement, although only 17 countries have ratified that treaty. The Moon Agreement suggests that the Moon and other celestial bodies are part of the "common heritage of mankind", implying that any benefits deriving from their exploitation should be shared among states parties. This tension between differing legal frameworks raises questions about the governance of space resources and the potential for conflicts of interest between nations.

Another legal challenge is the possibility of "flags of convenience" in space, where companies register space objects in countries with less stringent regulations to avoid oversight. Similar to the practice in maritime law, this could lead to regulatory loopholes that undermine the safety, sustainability and equitable use of space.

In response to this revolution, there have been significant legal and regulatory advances. The International Telecommunication Union (ITU) has adapted a set of Radio Regulations to introduce specific provisions for satellite constellations and CubeSats, addressing the challenges posed by the growing number of satellites in orbit. Additionally, at the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), a working group has been established to examine the legal regime governing the exploitation of resources on celestial bodies. However, discussions on establishing an international Space Traffic Management (STM) regime – essential for coordinating the increasing volume of space traffic – are more challenging, as such a system would need to be inherently international in scope and enforcement.

At the same time, the private space industry is increasingly pushing for a seat at the table in the development of space governance. Companies involved in New Space recognise the importance of helping shape the norms and regulations that will govern future space activities. This involvement marks a shift in how space law is traditionally developed, with private actors now playing a more active role alongside governments in defining the rules for space operations. As New Space disrupts the traditional model of space law development, the industry itself is advocating for a more agile, collaborative approach to regulation.

CONCLUSION

The rapid rise of New Space poses an important question: is this new era of space exploration and utilisation a true advancement for humanity, or does it represent the increasing control of private interests over a shared resource? While the innovations brought by private companies have undeniably accelerated space access, are we witnessing the unchecked exploitation of space and a technological race that risks losing sight of the broader purpose of space exploration? The possibility of overexploitation raises alarms about the sustainability of space for future generations. In this context, only the adoption of a comprehensive international legal framework can ensure that New Space

develops harmoniously, in line with the spirit of the Outer Space Treaty. Article I of the treaty reminds us that the exploration and use of outer space shall be the province of all humankind, and its exploration and use must be conducted for the benefit of all states, irrespective of their level of technological development. To uphold this principle, it is essential that the international community comes together to establish updated legal norms that respect the collective interests of humanity while fostering responsible technological advancements.

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