## IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)

Balancing Needs: Protection of Space Science (3)

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## INTERNATIONAL RESPONSIBILITY TO PROTECT FREEDOM OF OUTER SPACE EXPLORATION VERSUS FREEDOM OF USE OF OUTER SPACE

## Abstract

Freedom of outer space exploration (freedom of exploration) and freedom of use of outer space (freedom of use) are mentioned consecutively in Article I of the Outer Space Treaty (OST), however each freedom is independent of the other. Today, it is particularly important to distinguish between these freedoms in order to discuss the inevitable and irreversible impact on astronomical science conducted under the freedom of exploration by megaconstellations aiming to provide a global range of Internet services conducted under the freedom of use. This means that enjoying the freedom of use does harm to enjoying the freedom of exploration.

The astronomical society and private operators are consulting to mitigate the problem from a technical standpoint. However, there is no effective discussion on a legal remedy that would create a special regime for licencing and operating satellites in megaconstellations. In light of this problem, this study asks whether States have an obligation, and therefore an international responsibility, to licence and monitor the activities of the commercial sector with a special legal regime under Article VI of the OST.

To answer this question, I first determine whether both freedoms have equal legal value or whether one of the freedoms should take precedence over the other. If we assume that both freedoms have the same legal value, we could not conclude that states have an international responsibility to create a special regime. Therefore, I propose balancing these freedoms, a concept of constitutional law, and to give more weight to one of the two freedoms than to the other. To this end, I analyse the values that could be protected by guaranteeing freedom of exploration and freedom of use respectively, based on their relationship to a human right. In this particular case, I suggest that the freedom of exploration associated with the right to scientific research should be protected and thus take precedence over the freedom of use associated with the right to Internet access.

Following the examination, I conclude that states have an obligation, and thus an international responsibility, to establish a specific regime to protect astronomical activities from the effects of megaconstellations. Failure to comply with this obligation may result in states facing the consequences that flow from the concept of state responsibility in international law.