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Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal
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ANALYSIS OF LEGAL & POLICY ISSUES FOR FUTURE OPERATIONAL DEBRIS MITIGATION
SYSTEMS

Abstract

The preservation of space environment from debris threats will involve a deep analysis on legal policy issues for future Operational Debris Mitigation Systems. It is an essential step to draft a set of specific rules, agreed at national and international level, for a governance and regulation framework. What is lacked is a soft law instrument, internationally agreed, that can enforce such decisions on States' behalf, for the sake of the sustainability and ongoing security of the space environment. These aspects are very sensitive and they involve constraints in relation to the national sovereignty and to the identification of "commercial" actors that could invest and operate in these domains. The maritime law can offer some frame of reference to solve this issue. Specifically, the international law of salvage in high seas, as outlined in the International Convention on Salvage, IMO 1989, may establish a similar regime, in space, for abandoned spacecraft. Nevertheless, to what extent may the principle of the environment safeguard represent a suitable justification for salvage operations duties? The analysis want to draw a distinction between Law of the Sea and legal status of outer space, highlighting analogy relating to exploration, commercialization and extraterritorial protection of natural resources contained therein. Hence the need to access liability of States or companies to take necessary enforcement actions following any moral or material damages caused by their activities. At institutional level the need for shared compulsory norms cannot be mitigated any longer by guidelines nor by recommendations, which, although reflecting already existing practices, do not possess the inherent efficacy specific to other types of legal acts. In this regard, the pivotal role of the International Telecommunication Union (ITU) in setting a regulation for the Active Debris Removal missions (ADR), in the years to come, should not be underplayed. Since this agency is in charge of promoting and coordinating the definition of technical standards, as well as of assigning satellite orbits, it might be able to establish itself as the referral organization for the issuing of finally binding space debris mitigation rules. It is crucial to have an institution capable of maintaining the balance (both technical and political) between multiple stakeholders and security and environmental constraints. So much of the future of space activities will depend on how those rules will succeed in limiting the growing amount of floating debris in space.