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TOWARDS A LEGAL FRAMEWORK FOR SPACE TRAFFIC MANAGEMENT: INTERNATIONAL AND REGIONAL INITIATIVES

Abstract

Space has been at the forefront of political debates ever since it was first made accessible to superpowers. The increasing congestion caused by space debris and satellites orbiting the Earth poses significant risks of collisions, interference, and threatens the long-term sustainability of space. This complex challenge necessitates international cooperation to establish a robust STM framework. This abstract explores existing international traffic management regimes and analyzes initiatives related to STM, ultimately arguing that a dedicated STM framework is crucial.

The existing international traffic management frameworks for air, sea, and radio frequencies offer valuable insights for developing a comprehensive STM framework. Analyzing regulations from the International Civil Aviation Organization, the International Maritime Organization as well as the European Union's approach to both regimes serves as an important basis to highlight elements which could be applicable to manage space traffic too. Furthermore, the International Telecommunication Union's Radio Regulations undoubtedly serve as an example to also emphasize the importance of spectrum allocation to prevent interference.

Consequently, STM is first analyzed through the two International Academy of Astronautics Cosmic Studies, assessing their impact on the international community and then through the lens of space safety and sustainability, addressing Space Situational Awareness and the work of the International Association for the Advancement of Space Safety's working group on STM.

The existing non-legally binding instruments relevant to STM such as the International Code of Conduct for Outer Space Activities, the work of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities, the Inter-Agency Space Debris Coordination Committee Space Debris Mitigation Guidelines and the Long-Term Sustainability of Outer Space Activities Guidelines also need to be taken into account in order to identify the existing gaps and assess the essential elements necessary for an STM framework.

While the aforementioned existing non-legally binding instruments have contributed significantly to regulating STM, this abstract argues that the unique challenges it poses necessitate a dedicated legal framework which should be built upon existing soft law instruments and consider the models provided by established traffic management regimes for other domains.