IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
A new look at (how far are we with) Space Traffic Management (3)

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AGREEING ON THE RULES-OF-THE-ROAD - DISTILLING BUILDING BLOCKS FROM PROPOSED SPACE TRAFFIC MANAGEMENT GUIDELINES AND STANDARDS

Abstract

The rapidly growing number of satellites increase risk of congestion, collisions and debris in the orbits closes to earth. In addition to the quantitative increase in activity, the orbital domains are becoming less predictable with the broadening of what operations are technologically and economically viable. Mega-constellations of disposable satellites with short life cycles and on-orbit-servicing leading to increased maneuvering are complicating tracking and coordination. Academics and policymakers, as well as private actors, including satellite operators, recognize the urgent need for international governance of space traffic. However, there is far from agreement on the most feasible regulatory form for an international STM regime. In brief, some favor a top-down, treaty-based solution, while other argue for a bottom-up, soft law based approach. Between these two positions, a number of hybrid-approaches seek to combine overarching principles with accommodating current operational realities.

Actors from private and public organizations have proposed guidelines and standards that could form part of a comprehensive STM regime. Examples include the *Best Practices for the Sustainability of Space*, published by the space industry stakeholders in the Space Safety Coalition and the *Long-term Sustainability of Outer Space Activities* developed in UNCOPUOS. The proposed instruments vary in scope and have garnered varying degrees of international support. This paper provides an overview and analysis of the proposed instruments that form part of the building blocks to a future STM regime. The analysis compares the instruments across a range of categories, such as definition of key terms, scope, and substance of proposed rules. The paper seeks to identify gaps, variance and potential points of dispute in the instruments, as well as assessing the level of development of the rules in terms of specificity and clarity. The discussion of regulatory approaches is sidestepped by focusing on distilling the building blocks of a future STM regime in the form of actual, concrete rules-of-the-road, irrespective of how they can or should have legal effect.

Despite the many initiatives related to STM, there are few suggestions of tangible, specific rules clarifying how actual STM should be conducted on an operational level. There is a lack of discussion of the actual "rules-of-the-road". The paper points to areas that needs to be further elaborated by technical and regulatory experts in order to further the discussions on the clear and specific rules required for a functional, international STM regime.