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Political, Legal, Institutional and Economic Aspects of Space Debris Mitigation and Removal - STM
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AN EU APPROACH FOR SPACE TRAFFIC MANAGEMENT: UPDATED INSTRUMENTS TO
TACKLE RISING CHALLENGES

Abstract

Space Traffic Management (STM) has become a political priority for assuring an increased level of safety of operations in outer space, including, but not limited to the satellite traffic in Low Earth Orbit. Also, STM is a necessary means to avoid conflict in outer space. The current space activities are following a set of best practices which are rapidly becoming obsolete, or insufficient when compared with the number of satellites expected to be operational in outer space in the next years. Therefore, the implementation of a new set of flexible, standardized rules to satisfy the needs of the future space activities is necessary. The European Union (EU) is making important steps towards addressing STM and its capacity to detecting objects in outer space. In fact, as a key international full-fledged space power, the European Union has started to design an autonomous, independent and strategic understanding of STM and what this concept should include, also by launching a series of diversified research projects, including a Pilot Project on STM and two Coordination and Support Actions on STM supported by the H2020 programme, namely EUSTM and SPACEWAYS. In the present contribution, the authors will first provide an overview of the current developments in the space environment, identifying future trends and potential gaps in managing space traffic. Second, after having analysed the domestic legal framework on which the EU action on STM is grounded, the authors will investigate the current developments at the political and legal level that have interested STM governance, underlying the main developments in this regard. Finally, this contribution will present the main research initiatives undertaken at the EU domestic level to implement and concretize an EU approach on STM, particularly focusing on the contribution of SPACEWAYS, a Horizon 2020 European research programme aimed at providing recommendations and guidelines to the European Commission on Space Traffic Management (STM) and assessing its relevance for the European way forward on STM.