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Legal Issues of Space Traffic Management (4)

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UPDATE ON THE SECOND IAA STUDY ON SPACE TRAFFIC MANAGEMENT

Abstract

This paper summarizes the mid-term status of the comprehensive study on "Space Traffic Management-Towards a Roadmap for Implementation" conducted in the framework of the International Academy of Astronautics (IAA) under an international multi-disciplinary study group. For the purposes of the study, Space Traffic Management (STM) is defined as "the set of technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from outer space to Earth free from physical or radio-frequency interference". In short, it seeks to provide a framework for the safety, security and stability of future space activities. This STM definition, as well as the first mature concept for STM, was developed in a visionary STM study of the IAA in 2006. STM has emerged as a seriously discussed architecture that could transform the way in which to address current and future spaceflight challenges. This second IAA study will probe how the major trends in space-relevant activities over the next two decades will likely impact on the development of STM.

The study will expand on the basic concept of STM outlined in 2006 by offering a roadmap for implementation. Upon its release in 2016, the study will provide a solid foundation for discussions associated with the 50th anniversary of the 1967 Outer Space Treaty (OST) the following year. The study should be particularly relevant to re-examining the scope and status of OST implementation. The legal, technical, economic and political dimensions of space activities addressed in this IAA study should blend into a nucleus for a framework for managing space activities in the 21st century. Indeed, the study will seek to introduce an innovative approach to managing space objects launch, in-orbit, and re-entry operations, as well as the related issues of space debris and space situational awareness. The study will likewise recommend an international STM regime and delineate the conditions and timeframe in which such a regime could be successfully formulated, negotiated, and adopted by the global space community. This endeavor will be largely predicated on the proper shaping of a heightened global awareness to better manage space traffic.