

SPACE DEBRIS SYMPOSIUM (A6)

Political, Economic and Institutional Aspects of Space Debris Mitigation and Removal (Joint with Space Security Committee) (6)

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SOME LEGAL AND REGULATORY CONSTRAINTS ON THE CONDUCT OF ACTIVE DEBRIS
REMOVAL AND ON-ORBIT SATELLITE SERVICING

Abstract

The proliferation of man-made debris in outer space poses major risks to the sustainability of mankind's exploration and use of outer space. Several international, regional and national space debris mitigation guidelines have recently been adopted and are being implemented in order to reduce the possibility of creating new space debris during the conduct of space activities. However, in view of the massive amount of debris already in existence in outer space, particularly in the orbits that are most used for mankind's space operations, an active process for the removal of existing debris from space and for on-orbit servicing of satellites is imperative in order to protect the space environment in the long-term. A number of advanced technologies and concepts for active debris removal (ADR) and on-orbit satellite servicing (OOS) are currently under development. However, the viability and ease of implementation of these concepts and technologies will, among other things, depend heavily upon the existence of a favourable and enabling legal and regulatory environment, both at the international and domestic levels. This paper identifies and analyzes some of the most important legal and regulatory constraints on the conduct of ADR and OOS activities and suggests various regulatory steps that should be taken to improve the situation. Specifically, topics addressed include: the legal definition of what constitutes space debris for purposes of ADR and OOS; jurisdiction and control over space objects, including domestic prohibitions and restrictions on the transfer to foreign entities of technology carried aboard, and technical information about, space objects - an indispensable requirement for the conduct of ADR and OOS activities; and, the attribution of liability for damage that may occur during the conduct of ADR and OOS activities.