

SYMPOSIUM ON SPACE DEBRIS (A6)

(joint session with Space Security Committee): Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal (8)

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OUTCOMES AND SOME PROPOSALS FROM INTERNATIONAL SYMPOSIUM ON ENSURING
STABLE USE OF OUTER SPACE ACTIVITIES

Abstract

Since the first artificial satellite, SPUTNIK, number of man-made objects has been increased gradually toward year 2000. China conducted ASAT in 2007 and US satellite iridium and Russian metrological satellite were crashed in 2009 so that more than 5,000 pieces of fragmentations were created. IADC was formally established in 1993 (1) and have issued the Space Debris Mitigation Guideline in 2002 and it was endorsed at the UN Committee on Peaceful Uses of Outer Space in June 2007 at its 62nd session. And the UN General Assembly endorsed the UN Space Debris Mitigation Guidelines in 2009. On the other hand, UN Group of Governmental Experts on TCBMs, established in 2011, published a report in 2013 and recommend International Code of Conduct. ICOC was proposed by EU and they have had 3 open-ended discussions since 2013 and it was amended 4 times. And further more Working Group on Long term Sustainability of Outer Space Activities under UNCOPUOS/STSC, established in 2011, discussed about some of guidelines. Despite of great endeavours, they have not yet reached any consensus. We are facing new threats such as a large number of Cubesat's launches after year of 2010. More than 300 CubeSats have been launched into LEO by 2015. JSpOC published some recommendations to CubeSat communities about their Development, Pre-launch, Launch and Post-launch phases. When IADC had discussed the initial Space Debris Mitigation Guidelines, they could not foresee such situations changes in LEO orbit. They could possibly pose significant threats to primary satellites because of the lack of propellant systems for manoeuvring. Space development and use must be constrained, unless space debris and space objects are well managed, except for limited specific missions that require the most advanced technology or specific scientific research. Regarding small satellites, while some with specific missions may be expected to remain in their orbits for a long time, others launched for educational and capacity-building purposes may not need to be in their orbits for an extended period. For the latter, the duration to remain in the orbit or their lifetime should be shortened and limited. I would like to propose in this paper that the existing UN Space Debris Mitigation Guidelines should be revised to comply with such situation. We discussed those matters at the International Symposium on Ensuring Stable Use of Space Activities early 2016 in Tokyo. I will introduce some outcomes and proposals from this symposium discussion.