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Policy, Legal, Institutional, Economic and Security Aspects of Debris Mitigation, Debris Remediation and STM (8-E9.1)

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INTERNATIONAL APPROACH TO SPACE SITUATIONAL AWARENESS AND COLLISION AVOIDANCE

Abstract

This paper is based on a team project of the International Space University Space Studies Program 2023, providing an international, intercultural, and interdisciplinary view on the topic of space situational awareness and collision avoidance. The space environment is increasingly crowded, with the launch of mega-constellations of satellites. There are many stakeholders involved in monitoring the Earth orbital environment and providing collision alert services for satellite operator customers. There are governmental services providing alerts to satellite operators. There are also an increasing number of private actors monitoring satellites and space debris, predicting orbits, and providing collision avoidance alerts as a service. The challenge is how to encourage the innovation occurring in the private sector while providing space traffic management and improve safety. This paper examines the current mix of government and private stakeholders and recommends technical and programmatic actions to improve global space situational awareness and collision avoidance from an international perspective.