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Cyber-based security threats to space missions: establishing the legal, institutional and collaborative framework to counteract them (2)

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ASSESSING CYBERSECURITY MEASURES IN SPACE AND CYBER LAWS

Abstract

Cyber threats on space systems have been sharply increasing in the past decade due to the rising digitalization of the space infrastructure and the intensifying use of satellites to support military operations, in particular in light of the war in Ukraine. However, there are currently no international treaty covering cyber threats on space systems. The main international legal frameworks governing these two domains, the Outer Space Treaty and the Budapest Convention, do not cover these threats either. In addition, cybersecurity threats have been largely overlooked in space policies, space laws, and cyber laws. This paper is part of a broader project conducted by the SGAC Space and Cybersecurity Project Group and will assess the cybersecurity measures, or lack thereof, in selected space laws and cyber laws. This paper will first map space and cyber laws in selected countries such as France, Switzerland, the United Kingdom, Australia, the United Arab Emirates, India, and Nigeria. Then, it will provide a comparative assessment of the acknowledgement of cyber threats on space systems, cybersecurity obligations as well as data security measures. Finally, this paper will provide an analysis on the challenges and rationale for the lack of harmonized measures regarding space cybersecurity as well as the recommendation(s) for efficient and dedicated rules.