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THE CURRENT CHALLENGES OF LIABILITY FOR LOSS OF SATELLITE-BASED SERVICES

**Abstract**

Doing full justice to the subject of liability for damage from outer space requires a look at the interaction between classic rules of international law, national law and the type of damage or loss resulting from in-orbit collision or other form of interference. Collisions between spacecraft, the impact of space-related debris, as well as GNSS service-related issues, can all lead to damage and loss; natural occurrences resulting from particular space weather may also play a role. The loss itself can range from damage to the environment of outer space, to damage to spacecraft in flight, including the loss of signal in space, and ultimately to the loss of satellite-based services. Much will depend on the individual service involved. In the case of telecommunication services, for example, the damage resulting from loss of communication networks may be considerable.

This paper therefore discusses the responses of the various branches of the law to such situations. In doing so, it looks at the extent to which viable commercial solutions have been developed to cater for the types of risks leading to space-related damage. The constraints of risk management and their synergies with the rules designed to sustain activities in outer space are looked at from the perspective of liability.

With the growth of satellite based services in fields beyond telecommunication now to include areas such as public utilities, the issue of liability and compensation for loss of commercial satellite services becomes more significant. The paper offers an update on the satellite-based technologies and services available and examines these in the light of the current rules governing outer space activities, at national and international level.