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THE CASCADE EFFECT: SPACE DEBRIS' IN-ORBIT COLLISIONS AND INTERNATIONAL
LIABILITY

Abstract

The increasing amount of space objects wondering in Earth's orbit without control or command has created a complex and challenging scenario, where the perspective of dangerous collisions and interferences cannot be neglected by the international community.

Indeed, during the past few years, several in-orbit collisions between or with space debris have been recorded, often times with catastrophic results. Those impacts tend to produce a cloud of fragments, riding at terrible speed. Some of the debris, even though quite diminutive in volume, represent relevant danger to functioning space objects, space stations and even astronauts.

International liability for damage produced by space objects in outer space is provided by the Space Treaty of 1967 and, particularly, by the Liability Convention of 1972. The latter specifies that damage caused elsewhere than on the surface of the Earth by space objects shall be liable only in case of fault. Relevant questions must, therefore, be acknowledged. First of all, is space debris a type of "space objects", in accordance with the Law? And if so, is the international regime, currently in effect, sufficient to address the current state of affairs, as far as victims are concerned? Those issues are certainly relevant for a comprehensive and efficient space traffic management.

Due to the fact that in-orbit collisions of or with space debris have a tendency to produce a cascade effect, in accordance with the so-called "Kessler Syndrome", it is hereby argued and supported a broad interpretation of applicable Space Law treaties, in order to assure victims of damage produced by space debris a full and equitable measure of compensation, as indeed assured by the preamble of the Liability Convention.