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Legal Challenges Represented by Large Satellite Infrastructures and Constellations (4)

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DEALING WITH THE REGULATORY VACUUM IN LEO: NEW INSURANCE SOLUTIONS FOR SMALL SATELLITES CONSTELLATIONS

Abstract

With the rapid increase of small satellites already orbiting in LEO, regulators and policy makers raise the need to mitigate potential risks which are associated with these satellites, now more than ever. The latest industry trend includes startups and commercial companies that are engaged in developing small satellites constellations to be operated in LEO.

Some of the constellations offer the opportunity to bring the internet to all parts of our world; others aim to monitor air and ocean traffic, benefiting mankind globally, and individuals. The commercial interest as well as benefits go hand in hand in this case, however, this is a new technological development, which space law is not adapted for. Consequently, there are some difficulties with respect to:

The notion of 'fault' (Art. III LIAB) regarding the case of collisions in space involving non-maneuverable small satellites.

Lack of STM rules.

Debris mitigation guidelines which limit the operations of the satellites for 25 years, however, cannot effectively deal with thousands of new satellites in LEO.

The author is currently contemplating these difficulties in her PhD study at Leiden University. In the current paper, new solutions for the mentioned risks shall be in the spotlight.

Until recently no adequate insurance products were available for small satellites operators. Hence, the ability to deal with collision risks, and comply with international obligations was very limited.

During 2015 the author, working for a leading small satellites launch broker, developed together with partners from the space insurance industry, an innovative declaration based Third Party Legal Liability insurance policy for small satellites. This opens the option to have a number of satellites insured, additionally to satellites being added or removed easily, facilitating risk mitigation for constellations.

While insurance does not solve all the concerns relating to said constellations, it brings the industry one step ahead towards a responsible use of LEO.

Another consequence is catalyzing further regulation of these constellations, and making operators aware of the financial and environmental aspects relating to their use of LEO.

The paper aims to elaborate on the mentioned recent developments and suggest further practices that will hopefully fill LEO's regulatory vacuum.