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

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THE DEVELOPMENT AND REGULATION OF SMALL SATELLITES

Abstract

As a product of highly integrated and automated aerospace technology, small satellites are currently undergoing a rapid development on each passing day. The applications of small satellite are becoming wider as ever before. On the one hand, small satellites are largely used for telecommunication, navigation, observation and remote sensing in civil and commercial area. On the other hand, with the advantage of short RD and launch period, small satellites are also popular to meet the special demand in military area. A large growing number of all kinds including both government and non-governmental entities (such as academic institutes, commercial enterprises, universities and even individuals) are actively participated in small satellites activities.

However, compared to the fast speed of development of small satellites activities, the regulation to small satellites is lagging behind. The legal basis for the regulatory of small satellites mainly includes the five well known international space conventions, the documents regarding space activities released by UN and other international organizations, as well as domestic space legislations. Except for a limited number of initiatives regarding small satellites by UNOOSA and ITU, there is hardly any legal regulation specifically for small satellites both international and domestic. Traditional regulations for general space activities are relatively obscure in its contents and usually limit the subject of rights and obligations to States. Therefore, those traditional regulations for space activities have certain limitations when replied to small satellite activities.

In combined with the latest practice and regulation status quo of small satellites activities, several legal issues emerging from dramatically development of small satellites will be discussed in this paper. The paper will elaborate the regulation of small satellites in four perspectives regarding space debris, orbital position and frequency, liability and compensation, as well as registration and authorization. Based on the analysis of these issues, this paper seeks to explore a better solution for the regulation in line with the development of small satellites activities.