

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
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SECONDARY MARKET IN SPACE – THE IMPORTANT ROLE IN-SPACE TRANSFERS OF SPACE
ASSETS CAN PLAY IN PROMOTING THE LONG-TERM SUSTAINABILITY OF OUTER SPACE

Abstract

With the decreasing costs of manufacturing and launching satellites, as well as the increasing number of space applications and services, some studies predict that the number of satellites in Lower Earth Orbit (LEO) alone will be in excess of 100,000 in the next decade. A significant amount of growth is also anticipated in other orbits, alongside the deployment of space assets on other celestial bodies. Such growth will naturally lead to instances where operators of space assets already deployed in space become bankrupt or face financial difficulties. Often, this tends to result in space assets belonging to these operators becoming space debris and no longer being used, despite being perfectly fit for purpose.

The bankruptcy of a space company with assets in orbit or on a celestial body can result in the creation of space debris and is detrimental to space sustainability. In any industry which involves high-value assets, a secondary market plays an important role in extending the lifecycle of objects and towards ensuring that waste is reduced, and that sustainable practices are promoted. In the past, this was not possible in the space industry due to technological limitations. However, with the advent of technologies such as on-orbit servicing, in-space manufacturing, software deployed satellites, and ground station as a service (GSaaS), the prospect of a secondary market for space assets has become much more viable.

This paper will examine some of the challenges found in international and domestic law texts with regard to in-orbit and in-space transfers of space assets, including issues related to the registration of space objects, jurisdiction and control, international responsibility and liability, as well as the doctrine of ‘Once a Launching State, always a Launching State’. It will also examine private international law approaches, such as the Space Protocol of the Cape Town Convention, and more recent domestic space law related reforms to promote more in-space transfers of space assets.

The paper will conclude by outlining the benefits and importance of a secondary market of space assets in order to boost space sustainability and maximising satellite lifecycles. It will also provide solutions based in contracts, law reform, and globalisation to the various legal obstacles that exist in this area.