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ORBITAL RIGHTS OF WAY: LEGAL TOOLS TO CULTIVATE MORE RESPONSIBLE SPACE  
ACTORS

**Abstract**

The risks of on-orbit collisions have risen dramatically with the influx of commercial space activities, as more actors engage in the exploration and utilisation of outer space. Activities such as the development of small satellite constellations, the global expansion of launch capabilities and the repurposing of satellites all contribute to more space objects being held in orbit for longer. Despite technological advances made in space situational awareness to track space objects, space activities remain inherently dangerous, and a large volume of satellites invariably increase the risks associated with space activities. As a result, there is a need for effective Space Traffic Management (STM) to create rules of the road on orbital manoeuvres and placate political tensions between space-faring States.

Although the current legal framework lays the groundwork for collision avoidance and the assignment of the responsibility and liability of States, it does not explicitly address STM. This exposes a significant lacuna when collisions occur in terms of fault. Moreover, although States play a large role in authorising and supervising space activities, recent practice has shown that private actors are often less willing to engage and consult on orbital manoeuvre operations.

This paper will therefore identify problems resulting from the lack of STM for outer space activities, and explore the legal standards imposed on public and private space actors by space law and general international law as they engage in the exploration and utilisation of their chosen orbital paths. The paper will look at these standards not just from an environmental perspective but also from a commercial standpoint, assessing the facilitative role that STM plays in the development of national space industries. Current State practice will be used to shed light on how States, who remain the key actors in space, are addressing the challenges of potential in-orbit collisions. Specific focus will be given in this regard to the recent exchange of views by China and the United States regarding Starlink satellites manoeuvring close to the Chinese Space Station.

This paper will conclude not only by reiterating the importance of STM, but also by highlighting some best practices with regards to responsible space operations in terms of information sharing, notification and consultation. It will be suggested that only when STM operates within a network of responsible space actors can it be an effective means to limit the creation of orbital debris and preserve the space environment for future generations.