23rd IAA SYMPOSIUM ON SPACE DEBRIS (A6)
Interactive Presentations - 23rd IAA SYMPOSIUM ON SPACE DEBRIS (IP)

Author: Mr. Nicolas Moraitis
Space Generation Advisory Council (SGAC), United Kingdom

LAGRANGE POINTS: REGULATORY OVERSIGHT AS A NEED FOR EQUITABLE ACCESS

Abstract

Lagrange points, spots of gravitational equilibrium between any two celestial bodies, hold immense value for space operations, enabling long-term station-keeping with minimal energy requirements. As space-faring nations and private entities increasingly utilise these locations for scientific, commercial, and security-related missions, the following question arises: are Lagrange points a limited natural resource requiring international regulatory oversight and cooperation?

Unlike geostationary orbital slots and the radio frequency spectrum - both governed by the International Telecommunication Union (ITU) to ensure equitable access and interference-free enjoyment - no analogous legal framework exists for Lagrange points. The current approach relies primarily on cooperation and voluntary coordination, lacking enforceable mechanisms to prevent monopolisation by dominant actors. This absence of regulation poses challenges for long-term sustainability, as well as for ensuring fair access for emerging space nations and weaker commercial operators.

Existing space treaties, particularly the Outer Space Treaty of 1967, establish that outer space shall be free for exploration and use by all states, but they do not specifically address competition over high-value orbital positions such as Lagrange points. Similarly, the Artemis Accords and national licensing frameworks focus on broader space activities without provisions for managing congestion or priority rights in these locations. As space activities expand, the absence of clear regulatory processes raises concerns over operational conflicts, strategic exclusion, and potential disputes. A regulatory approach balancing accessibility and sustainability considerations is necessary to ensure that Lagrange points remain a shared resource in the evolving space environment.

This paper aims to examine whether Lagrange points should be treated as limited natural resources and aims to explore possible regulatory mechanisms for their governance. Drawing parallels to the ITU's management of radio frequencies and orbital slots, it will consider policy options such as usage prioritisation frameworks, international registry systems, and coordination agreements. Establishing regulatory mechanisms before congestion becomes irreversible will be crucial to maintaining a fair and functional orbital environment; capacity allocation can preserve Lagrange points as shared assets, preventing long-term exclusionary practices, while enabling continued innovation in space operations.