60th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7) 9th Nandasiri Jasentuliyana Keynote Lecture on Space Law and Young Scholars Session (1)

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LEGAL PREVENTION OF UNILATERAL CONTROL OVER REGIONS AND POINTS OF OUTER SPACE: THE CASE OF LAGRANGIAN POINTS

Abstract

The rapid pace of space technologies and exploration development creates a new demand for the elaboration of new space law regulations. Higher intensity of space exploration has evolved into higher security risks, including those considering the militarization of space. While the current space law architecture has been successfully preventing open warfare in space for fifty years since the adoption of the Outer Space Treaty, its ability to prevent conflicts in space may diminish in the upcoming years, when the mankind will start its manned expansion to further regions and celestial bodies of the Solar System. The main danger to peaceful space exploration comes from the possibility of gaining a unilateral control over certain regions of outer space by space-faring powers with the help of dual-use technologies and camouflage military satellites. Article II of Outer Space Treaty states that "[o]uter space... is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means". Despite that statement, neither Outer Space Treaty, nor other space law agreements do not explicitly prohibit the de facto occupation of certain points of outer space by placing artificial objects into them. In this respect, the Lagrangian points might become subject to undesired unilateral control by either state or non-state space-faring actors. The unilateral control over the Lagrangian points may be used for covert space militarization, either. This paper argues there is a need to create a specific space agreement regulating the use of the Lagrangian points of the Solar System celestial bodies. First, a historical overview of how the use of the Lagrangian points is regulated by current space law agreements will be offered, together with historical examples of their practical use for different purposes. Second, possible conflict situations considering the use of the Lagrangian points will be described, including the possibilities of their covert use for space militarization and their *de facto* control by separate space-faring actors. In conclusion, a proposal of how to prevent the conflict situations by adopting a new specific international space agreement on the use of Lagrangian points will be made, including the verification measures using trajectories around those points, such as halo and Lissajous orbits. For the purposes of this paper, Lagrangian points in Sun-Earth and Earth-Moon systems are considered, as these are the most important Lagrangian points at the current point of space technology development.