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ACTIVE DEBRIS REMOVAL: LEGAL OBSTACLES AND POLICY ALTERNATIVES

Abstract

The space environment is unique in the sense that the natural decay of debris therein is much slower than pollutants in other environments. The voluntary implementation of mitigation measures during the last decade have contributed to slowing down the increase of space debris significantly. The amount of space debris is nevertheless reaching a “tipping point” due to the increase and diversification of space actors, the expansion of outer space activities in particular those for military purposes. Active Debris Removal (ADR) has thus become a scenario urgently called for. The development of ADR, however, has been coupled by concerns over legal obstacles such as the lack of a legally binding definition of space debris, possible intrusions into State jurisdiction and control, liability for possible damages caused during removal, implications to space arms control, and etc. On the other hand, international efforts aimed at strengthening space arms control is questioned as to the feasibility of banning weapons in outer space, due to the difficulty of distinguishing dual-use technologies such as ADR from weapons in outer space. Against this background, this article analyzes legal obstacles to ADR, and argues that ADR should be conducted through international cooperation rather than unilaterally in order not to exacerbate the mistrust among States. Recommendations such as the creation of an ADR fund, the registry of space debris and public indemnity for damage are made accordingly. It also aims to offer an appraisal of current proposals of space arms control (in particular the EU-coordinated Code of Conduct for Outer Space Activities and the Draft Treaty on the Prevention of Weapons in Outer Space) as to their effectiveness in regulating dual-use technologies such as ADR.