

21st IAA SYMPOSIUM ON SPACE DEBRIS (A6)
Interactive Presentations - 21st IAA SYMPOSIUM ON SPACE DEBRIS (IPB)

Author: Mr. George Anthony Long
United States

LIABILITY AND RESPONSIBILITY ISSUES ASSOCIATED WITH ACTIVE DEBRIS REMOVAL

Abstract

Active Debris Removal (“ADR”) is necessary to alleviate the hazards posed by orbital debris. However, some hesitancy in ADR may emerge given the unsettled liability and responsibility issues associated with removal of debris, especially when the ADR is being performed by a party with a launching State different than the launching State of the debris.

This paper will first discuss responsibility under the Outer Space Treaty associated with ADR de-orbiting debris in anticipation that it will be consumed by the atmosphere upon re-entry or swallowed by the oceans. Pursuant to Outer Space Treaty Article IX, space actors should refrain from causing adverse changes in Earth’s environment resulting from the introduction of “extraterrestrial matter” and, to adopt appropriate measures for that purpose. This analysis will entail examining what constitutes an adverse change in the Earth’s environment and whether debris can ever be classified as or considered to be “extraterrestrial matter” for Article IX purposes. Furthermore, given that microbes can survive on the outside of objects in space, the paper will explore the need to ascertain the type of microbes, if any, located on debris targeted for de-orbiting and, if so, whether they pose a danger of causing an “adverse change” in the Earth’s environment.

This paper will also explore the allocation of liability for damage under the Liability Convention between the debris’ launching State and the party engaging in the ADR. Pursuant to the Liability Convention, a State which launches or procures the launch of a space object is liable for damage caused by the space object. The Liability Convention then allocates absolute or fault liability for certain types of damage based on whether the damage occurred in outer space, on Earth or in the atmosphere. ADR, therefore, presents issues relating to the allocation of liability for damage caused by or resulting from the removal of debris regardless of whether the method of removal is deemed responsible under Outer Space Treaty Article IX.