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International Cooperation for Space Exploration (1) International Cooperation for Space Exploration (2) (2)

Author: Ms. Reenah Tamilarasu National University of Singapore, Singapore, Republic of

## MITIGATING ORBITAL DEBRIS

## Abstract

The paper will investigate how to improve international cooperation concerning orbital debris (OB) mitigation. OB accumulation is the unfortunate result of human exploration of space. OB refers to "any object placed in space by humans that remains in orbit and no longer serves any use" [3]. OB can collide with spacecraft and satellites, causing their damage and the loss of lives. More OB is being generated as more space actors prop up. In fact, it accounts "for about 95

Although there is some international cooperation regarding OB mitigation, not enough progress has been made. Existing measures have been passive. This is so as most international agreements cannot be enforced as they occur on a voluntary basis. Since no institution currently wields legal authority over states when it concerns space faring, states act independently and often in a self-interested manner even at the cost of collective interest. Only "60

By studying the institutional design of the European Union (EU), the paper aims to recreate an effective solution to ensure space actors cooperate regarding OB mitigation. The EU is successful as it recognises state sovereignty yet holds legal authority over its member states through bodies such as the European Parliament. The success of the EU can be explained through rational choice institutionalism. This refers to the power of institutions in shaping the decisions taken by states [4]. When under institutional constraints both formal and informal, actors make decisions in the collective interest more frequently. Operating under the framework of rational choice institutionalism, the paper will explore effective measures to ensure OB mitigation. Rational choice and historical institutionalists will be interviewed and EU policies will be analysed.

However, ensuring further international cooperation regarding OB mitigation through an institutionalized organization is not the only solution. There are many other considerations in play. Softening the costs of OB removal is key in ensuring states properly mitigate OB. Albeit, ensuring an effective international organization exists is important, as it allows states to constructively communicate with each other and ensure not just OB mitigation is under control, but to prevent future inter-state conflicts when exploring outer space.

Bibliography

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