19th IAA SYMPOSIUM ON SPACE DEBRIS (A6)

Political, Legal, Institutional and Economic Aspects of Space Debris Mitigation and Removal - STM Security (8-E9.1)

Author: Ms. Carissa Christensen
Bryce Space and Technology, United States, carissa.christensen@brycetech.com

Mr. Dave Belcher

Bryce Space and Technology, United States, dave.belcher@brycetech.com

Dr. Richard Leshner

Bryce Space and Technology, United States, rich.leshner@brycetech.com

Ms. Jaclyn Wiley

Bryce Space and Technology, United States, jaclyn.wiley@brycetech.com

Ms. Renata Kommel

Bryce Space and Technology, United States, renata.k.kommel@brycetech.com

Mr. Cameron Herrera

Bryce Space and Technology, United States, reid.herrera@brycetech.com

GLOBAL SURVEY OF TRENDS IN NATIONAL SPACETRAFFIC MANAGEMENT LEGAL AND POLICYREGIMES

Abstract

Recent years have seen a dramatic increase in the number of satellites being deployed in low-Earth orbit. This increase in activity, alongside existing orbital debris, has raised concerns regarding the sustainability of the orbital operating environment. The United Nations acknowledged Space Traffic Management (STM) as a major concern for safe space operations and implemented multiple efforts, both completed and ongoing; the resultant Space Debris Mitigation Guidelines and Guidelines for the Long-term Sustainability of Outer Space Activities are non-binding for signatories, but many nations, agencies, companies, and organizations have acknowledged and augmented them via laws, regulations, policies, and standards to guide responsible and safe space behavior. The level of development for these national STM regimes varies vastly from nation to nation, however.

This analysis surveys national STM regimes and evaluates trends that have emerged in their development, structure, and content. Special attention is paid to areas where nations have formalized bilateral and multilateral cooperation. This paper presents a comprehensive analysis and summary of the global regulatory elements of STM.