



EVENT REPORT

The Governance and Security in Outer Space virtual event was held on 11th of June 2020 and gathered approximately 60 participants from 25 nations.

Hosted by AMC Solutions in collaboration with SGAC Space and Cybersecurity Project Group, NATO CCD COE and Quantum Numerics, the symposium focused on the current trends in governance and security in outer space including cyber security challenges and ensuring mitigation of risks, stability, and sustainability in outer space.

The digital event started with opening remarks by AMCs CEO **Patrick O'Keeffe** on recent developments in the space sector as well as semantic aspects of space security.

PRESENTATIONS & DISCUSSIONS

The first speaker was former NATO Chief Legal Advisor **Steven Hill**. Referring to NATO's new space policy, established in June 2019, he highlighted the context in which space was recognized as an operational domain in the London Declaration. He outlined NATO's position on the militarization of outer space and the unresolved questions for the Alliance. In addition, he described the role of NATO in contributing to the development of norms in cyberspace despite the fact that NATO doesn't consider itself as a norm creating institution and called for an open discussion on norms in the space domain.

The second speaker was **Laetitia Zarkan**, member of the Space and Cybersecurity Project Group of the Space Generation Advisory Council (SGAC). She presented the cybersecurity challenges in space governance and security. She outlined how satellites are immersed in cyberspace as well as the associated cyber risks which range from the supply chain to user applications. She highlighted the utility of threat taxonomies to help identify all the cyber threats to space systems. Finally, she concluded that hostilities will likely happen at the intersection of cyberspace and outer space where there are several legal gaps.

The third speaker was **Harisson Caudill**, CEO of Orbital Security Alliance. He described the categories of space assets which require to be protected from cyber-attacks. He flagged certain cyber risks which are often forgotten by space start-ups. Finally, he highlighted the importance of organizational aspects in securing space systems.

The remainder of the virtual conference comprised of a Q&A session moderated by **Ann Väljataga** of NATO's

Cooperative Cyber Defence Centre of Excellence (CCD COE).

KEY TAKEAWAYS & WAY AHEAD

Potential risks: Due to an increasing number of satellites (e.g. mega constellations) as well as existing and growing space debris in orbit, there is a higher risk of collision. While risk mitigation of possible collisions in space has been organised by state actors, with non-state actors / private companies operating in outer space the responsibilities and lines of communication are unclear. Furthermore, a supply chain with multiple companies located in various countries involved in the ground-based space infrastructure as well as the production of satellite systems provides a large attack surface for cyber operations.

State of governance: In a context of a fast moving and constantly changing environment, international law as well as guidelines are essential to reduce risks of cyber-attacks. There may not yet be an agreed international document linking the peculiarities of outer space and cyber space, but they are very tightly related to one another. There is a need to forge a comprehensive framework.

Platform for dialogues: Since jurisdiction and risk mitigation in outer space as well as other specific aspects are not completely regulated, for a comprehensive space domain awareness it is essential to continue facilitating dialogues to ensure a 360-degree approach with all parties are included.

SPECIAL THANKS

Team

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