

## IAF SYMPOSIUM ON SPACE SECURITY (E9)

Cyber-based security threats to space missions: establishing the legal, institutional and collaborative framework to counteract them (2)

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## CYBER INTERFERENCE IN SPACE: THE NEED FOR UNIVERSAL JURISDICTION

**Abstract**

The relationship between cyber activity and space objects is inseparable. Cyber activity is the primary tool for interfacing with a space object. Unfortunately, cyber interface with a space object is not confined to its operator. Third parties, using a computer, can interfere with a space object by means which include jamming, hijacking or hacking the satellite's transmission, and seizing command and control.

Universal jurisdiction allows a nation to prosecute certain offenses under international law to which the State does not have any nexus and the prosecution can proceed without consent or authorization from any other State. The universal jurisdiction doctrine emerged in the middle of the last millennium in the context of piracy because piracy was private conduct which threatened commerce and the conduct occurred in a global commons, i.e., the high seas. Cyber interference with space objects by non-governmental entities disrupts commerce and occurs in a global commons, i.e., outer space. However, it may not be necessary to equate such cyber interference with international piracy in an effort to invoke universal jurisdiction.

Outer Space Treaty Article VI expressly provides that the activities of non-governmental entities "shall require authorization and continuing supervision by the appropriate State Party to the Treaty." This plain language of Article VI establishes that there is no requirement that the "Appropriate State" have any connection to the space activity, the space object, or the owners or crew of the space object. This suggests that under certain circumstances, a State can deem itself to be the Appropriate State to "supervise" the space activity of a non-national private entity even though it does not have any nexus to the activity, the space object, or the space object's owners or crew. Such "supervision" can arguably include criminal prosecution.

This paper will analyze Article VI and examine whether it can serve as a legal basis for invoking universal jurisdiction over cyber activity which adversely interferes with the operation, control and function of a space object while it is in space or on a celestial body. The existence of universal jurisdiction over the use of cyber activity to interfere with a space objects may potentially provide a beneficial tool to address, combat, and mitigate the disruption of space missions and space activities by the use of cyber interference.