

IAF SYMPOSIUM ON SECURITY, STABILITY AND SUSTAINABILITY OF SPACE ACTIVITIES
(E9)

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

Author: Mr. Abraham Akinwale
Space Generation Advisory Council (SGAC), United States

STRENGTHENING SPACE SITUATIONAL AWARENESS: INTEGRATING CYBER THREAT
INTELLIGENCE FOR GLOBAL SPACE SECURITY WITH A FOCUS ON DEVELOPING NATIONS

Abstract

This research delves into the imperative of securing space assets through the integration of Cyber Threat Intelligence (CTI) within Space Situational Awareness (SSA), with a particular emphasis on its applicability to developing countries. In the context of the burgeoning space industry, the study scrutinizes the evolving threat landscape, shedding light on vulnerabilities that cyber threats pose to SSA capabilities and orbital operations.

The paper not only identifies challenges but also proposes a strategic framework tailored to address the specific concerns faced by developing nations. It aims to fortify the resilience of space assets in these regions against intentional interference, data manipulation, and system compromise. By elucidating the symbiotic relationship between CTI and SSA, the research provides practical solutions that can be implemented in resource-constrained environments.

Recognizing the international dimensions of a compromised space environment, the study advocates for inclusive collaboration and knowledge-sharing. In presenting these findings, the research seeks to empower developing countries with actionable insights, fostering equitable participation and ensuring the responsible advancement of space exploration amidst the escalating cyber risks.