2025

IAF SPACE SECURITY COMMITTEE

Introduction

Space security has become a defining issue in the international community, as the orbital environment grows more complex, contested, and congested. The increasing number and diversity of actors, together with the dual demands of protecting national interests and ensuring collective safety, underline the importance of building effective mechanisms for coordination and trust. Ensuring long-term sustainability, safety and security in space remains a shared responsibility by all nations.

Recent discussions have shown that questions of safety, security, sustainability, and stability cannot be addressed in isolation. Operational practices, technological developments, and strategic considerations are closely intertwined, and progress in one area depends on cooperation in another. The challenge lies in balancing transparency with legitimate security concerns, while at the same time advancing practical measures that reduce risks for all operators.

At the international level, both technical innovation and diplomatic dialogue are shaping the way forward. New approaches to data sharing, coordination, and operational safety are being developed in parallel with renewed efforts in multilateral forums to establish common ground and shared understandings. These complementary tracks highlight the need for engagement across government, industry and civil society, ensuring that solutions are both technically robust and politically viable.

Against this backdrop, the International Astronautical Federation (IAF) Space Security Committee continues to serve as a high-level forum where policy, strategy and technical expertise converge. By convening a broad community of stakeholders, the Committee fosters dialogue, strengthens mutual understanding and contributes to shaping cooperative approaches that will be vital to safeguarding space for future generations. With its comprehensive scope and inclusive outlook, the Committee provides a unique meeting ground for addressing the challenges and opportunities of space security in all their dimensions.

Summary

In 2025, the IAF Space Security Committee convened in March, bringing together experts from government, academia, industry and civil society to exchange perspective on the year's most pressing space security issues and potential solutions.

During the meeting, **Marc Becker**, Policy Officer for Space Security at the German Federal Ministry of Defense, outlined the military perspective on Space Traffic Management (STM). He highlighted the growing recognition of space as an operational domain where military and civil activities coexist with commercial operations. His remarks underscored the need to integrate military requirements within STM frameworks, particularly in light of space congestion, debris and dual-use technologies, and issued a clear call for enhanced international cooperation among civil, commercial and military stakeholders to ensure safe and sustainable operations.

Additionally, **Guoyu Wang**, Dean of the Academy of Air, Space Policy and Law at the Beijing Institute of Technology, examined conceptional and political challenges facing the establishment of international mechanisms for Space Traffic Coordination and Space Security Governance. He stressed that safety (freedom from damage), and security (freedom from threat) are too often treated in isolation within different multilateral fora, whereas in reality, their scopes increasingly overlap, particularly in areas such as space debris mitigation, anti-satellite tests and in-orbit operations. He argued that space stability should serve as both the starting point and end goal of international space governance, recommending intensified diplomatic engagement on deterrence and security dynamics. He further noted that while legal norms should anchor multilateral dialogue, operational mechanisms may need to progress through bilateral channels, with mutual trust as a prerequisite for meaningful coordination.

We also had the opportunity to listen to **Mariel Borowitz**, Head of International SSA Engagement in the US Office of Space Commerce, who provided an update on the Traffic Coordination System for Space (TraCSS). She explained that TraCSS represents a significant institutional shift in the United States, transferring responsibility for civil spaceflight safety services from defence to a civilian authority. Built to ingest data from government, commercial and international sources, TraCSS aims to deliver accurate, timely and accessible services to satellite operators worldwide. Its open-data policy was highlighted as an important step towards transparency and operator-to-operator coordination across borders, positioning the system as a model for how national initiatives can contribute to broader international efforts in spaceflight safety.

Finally, **Sarah Erickson**, Project Coordinator at the UNIDIR Space Security Programme, briefed the Committee on the status and evolution of the OEWG on PAROS. She recalled that, while earlier processes faced challenges, the conclusion of the second GGE with a consensus report in 2024 marked an important milestone. Building on this momentum, the decision was taken to merge two parallel OEWGs – one on norms, rules, and responsible behaviours, the other on substantive legal elements toward a treaty – into a single OEWG on PAROS. Looking ahead, the OEWG is expected to focus on the intentional destruction of space objects, the deployment of space systems for hostile purposes, interference with space object operations, military doctrines and policies and the challenge of developing shared definitions and understandings of space threats and responsible behaviour.

At the March meeting, we also welcomed two new members: **Rachel Venn**, from the Space Generation Advisory Council, and Rong Chen, Senior Engineer at the China Academy of Launch Vehicle Technology. Their appointment reflects the Committee's broadening expertise and its commitment to fostering the engagement of young professionals in the space security dialogue.

Highlights

In 2025, the Space Security Committee observed important advancements shaping the future of space safety, security and sustainability. New initiatives such as TraCSS underscored the growing importance of civilian-led, open-data approaches to spaceflight safety, while the continued growth of international SSA systems promises improved accuracy and accessibility for operators worldwide.

Equally significant were steps forward in international governance, with the consolidation of processes under the new OEWG on PAROS. This unified forum brings together normative and legal discussions, strengthening multilateral dialogue on space threats, responsible behaviours, and long-term stability.

Together, these developments underscore a clear trend: collaboration is becoming a cornerstone of space security. By combining technological innovation with renewed multilateral engagement, the international community is laying the groundwork for a safer, more secure, and more sustainable space environment for the future.

Outlook

In the coming years, the Committee will continue to prioritise global cooperation in space security, closely monitoring the progress of multilateral initiatives such as the OEWG. A central focus will be on promoting a holistic approach that recognises the interdependence of space safety, security, sustainability and stability. Key areas of discussion are expected to include the evolution of STM practices, the strengthening of space awareness capabilities, and the development of governance frameworks that balance transparency with national security considerations.

The Committee will also remain a forum of high-level dialogue, inviting distinguished speakers across government, industry, academia, and civil society to share their perspectives and expertise. By fostering inclusive exchanges and forward-looking debates, the Committee aims to support the international community in shaping cooperative solutions that safeguard space for future generations.

Committee Activities

The Committee will continue encourage members' engagement on both policy and technical matters of common concern, maintaining close links with other IAF Committees and sub-committees of relevance. Participation from emerging spacefaring nations will remain a priority, recognising the increasingly global character of space as a critical infrastructure.

At future meetings, the Committee will focus on challenges in space traffic coordination and on the integration of commercial actors into space security frameworks. Special attention will be given to improving alignment between existing and developing SSA systems across different regions, with the aim of enhancing coordination and supporting global safety and sustainability. At the same time, the Committee will closely follow the official, multilateral processes where space security remains a key focus of international dialogue. By combining technical insight with strategic foresight, the Committee will reinforce its role as a leading voice in advancing cooperative approaches to space security.