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2023 Outer Space Security Conference Report

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CONFERENCE 2023

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UNIDIR is a voluntarily funded, autonomous institute within the United Nations. One of the few policy institutes worldwide focusing on disarmament, UNIDIR generates knowledge and promotes dialogue and action on disarmament and security. Based in Geneva, UNIDIR assists the international community to develop the practical, innovative ideas needed to find solutions to critical security problems.

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Note

This report constitutes both a summary and analysis of the discussions and exchanges that took place at UNIDIR's Outer Space Security Conference held at the Palais des Nations in Geneva on 13–14 September 2023. Where this document reports or refers to statements made by panellists, every effort has been made to provide a fair representation of their views. The actual content and flow of the report, however, may differ slightly from the panellists' delivery and their presentations. Videos of all sessions are available on UNIDIR's website, unidir.org/OS23.

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Secure World Foundation is a private operating foundation dedicated to the secure and sustainable use of space for the benefit of Earth and all its peoples. It works with governments, industry, international organizations and civil society to develop and promote ideas and action for international collaboration. The foundation's aim is to achieve secure, sustainable and peaceful uses of outer space.



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ACRONYMS & ABBREVIATIONS

ASAT	Anti-satellite
COPUOS	Committee on the Peaceful Uses of Outer Space
DA	Direct Ascent
GGE	Group of Governmental Experts
IHL	International humanitarian law
ITU	International Telecommunication Union
LTS Guidelines	Long-Term Sustainability Guidelines
NFP	No first placement of weapons in space
OEWG	Open-ended Working Group
PAROS	Preventing an arms race in outer space
PPWT	Draft treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects
TCBM	Transparency and confidence-building measure
UNOOSA	United Nations Office for Outer Space Affairs

INTRODUCTION



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Switzerland, 2023. Outer Space Security Conference

INTRODUCTION

UNIDIR's 2023 Outer Space Security Conference (OS23) was held on 13 and 14 September 2023 both virtually and in-person at the Palais des Nations in Geneva, Switzerland. This two-day flagship event provided a unique forum for the diplomatic community and experts from military, industrial, and academic backgrounds to jointly consider challenges and solutions related to security in outer space.

Over 1,400 people participated in OS23 in-person or online, with registrations from at least 41 countries and 45 institutions. Participants largely acknowledged the growing importance of outer space, and thus, the growing relevance of space security. The continued development of space technology provides new opportunities to address humanity's needs; however, space technology can be developed and used for hostile purposes. In the context of rising geopolitical tensions, speakers underscored the need for the international community to redouble efforts towards outer space security, safety and sustainability.

During OS23 it was highlighted that multiple initiatives to address these concerns have been put forth in the past, and continue to be proposed to this day, in line with the evolving nature of space security. Many recognized the need for ensuring the complementarity of different measures, taking into account the diversity of stakeholders and perspectives, and building common understandings to effectively achieve space security.

During the first day of OS23, speakers focused discussion on mapping space threats, risk and challenges, and analysing the different initiatives to address such challenges, with a view to ultimately achieving the goal of preventing an arms race in outer space (PAROS). On the second day of the conference, panellists looked at practical tools to aid in achieving PAROS, as well as the importance of an inclusive, multilateral approach to space security.

The discussion over the course of OS23 is summarized in this document, which also identifies key takeaway points.

PANEL I.

MAPPING SPACE THREATS, RISKS AND CHALLENGES



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MAPPING SPACE THREATS, RISKS AND CHALLENGES

The first panel provided an overview of space threats, risks and challenges. Panellists indicated that space-related technologies are advancing and diffusing rapidly around the world. This provides opportunities to use space to address a wide range of societal challenges; however, the same technologies can also be used for hostile purposes.

One panellist suggested that the Kessler Syndrome, a cascading situation where debris collides with other debris in space creating yet more debris, is already unfolding. To redress this issue, active debris removal and rethinking the production and use of satellites is necessary. One panellist argued that this situation should be recognized as a more imminent threat than the weaponization of space or the use of space systems for hostile purposes.

Regarding the differentiation between space security and safety, one panellist suggested that space security relates to military threats and dangers, while space safety relates to naturally arising hazards and risks from the peaceful use and exploration of space. Other panellists identified overlaps between space security, safety and sustainability, advocating for further exploration of the relationship between these concepts.

The discussion turned to approaches for achieving space security. It was suggested that space threats should be tackled through a 'capability-based approach' —the establishment of measures that prohibit or limit certain capabilities in space systems— because assessing behaviours in a 'behaviours-based approach' —the establishment of measures that prohibit or limit certain uses or activities of space systems— is a subjective exercise, further adding that rules of behaviour may be construed as rules for waging war in space. It was proposed that discussion around behaviours fall under the remit of the Committee on the Peaceful Uses of Outer Space (COPUOS). Others argued that a behaviours-based approach increases transparency and predictability, and that current verification capacities make it unfeasible to verify technical capabilities.

Regarding the approaches that seek to achieve space security through voluntary norms on the one hand, or legally binding instruments on the other, one panellist suggested that the traditional debate which considers these approaches incompatible is a false dichotomy.

Some panellists raised the development of counterspace capabilities as a point of particular concern. One panellist stated that this issue is exacerbated by gaps in existing space law and, as such, a gradual approach towards PAROS is a major problem. Another panellist expressed concerns over the proliferation of ground-based anti-satellite (ASAT) weapons and the destructive testing of ASAT weapons.

Panellists also raised concerns over the use of civilian and commercial space assets for military functions. A suggestion was made that this could make certain non-military satellites a legitimate target in armed conflict, and that this would cause non-military space assets, as well as the services they provide, to suffer tremendously if armed conflict were to extend to space.

Several panellists agreed that further space security discussions must be pragmatic and goal-oriented, rather than serve as a theoretical exercise, and should be narrowly focused, rather than broad. There was agreement on the importance of consistent language and common understanding to reduce misunderstandings and miscalculations.

The importance of a technical perspective was highlighted when panellists elaborated on the different segments of space systems (the ground segment, such as ground stations; the space segment, such as satellites or space vehicles; and the data links between them) and the different vulnerabilities of each. Another panellist illustrated how stakeholders, such as financial insurers, could encourage sustainable and secure behaviour in space, also cautioning that underwriters may leave the space market and assets in low Earth orbit could become uninsurable in three to four years.

Panellists also discussed the advent of cube-sats, large constellations, and mega-constellations. Panellists emphasized sustainability concerns over congestion and spectrum hoarding (the behaviour of acquiring or holding a significant amount of radio frequency spectrum) and regulatory and licensing issues, as well as the need for orbital right of way rules. One panellist explained that large and mega-constellations could reduce the benefits of destructive direct-ascent ASAT weapons. Another panellist stated that the underlying drivers of an arms race do not change as States seek new means to counter new technologies.

Panellists proposed a holistic approach to understanding space threats and risks, accounting for the varied perspectives of the increasingly diverse set of actors in space. The panel generally agreed on the importance of collaboration. For instance, data and information exchange for space situational awareness and space traffic management could address respective gaps in hardware capabilities. A 2014 proposal submitted to COPUOS for a unified Centre for Information on Near-Earth Space Monitoring was mentioned as an example. The view was expressed that the dearth of trust between States stymies the creation of a global focal point for data exchanges, but that the pursuit of interim collaborative goals could aid in trust-building; and all panellists spoke to the critical role that trust plays in PAROS.

Panellists understood the relationship between space and strategic deterrence to be an important topic; this view was echoed by a participant from the floor. One panellist cautioned that concepts from nuclear deterrence should not be uncritically transplanted into deterrence in space. Another panellist opined that space might make it harder to maintain strategic deterrence. Finally, a panellist underscored the importance of the upcoming Group of Governmental Experts (GGE) on PAROS as a platform for discussing matters raised in this panel.



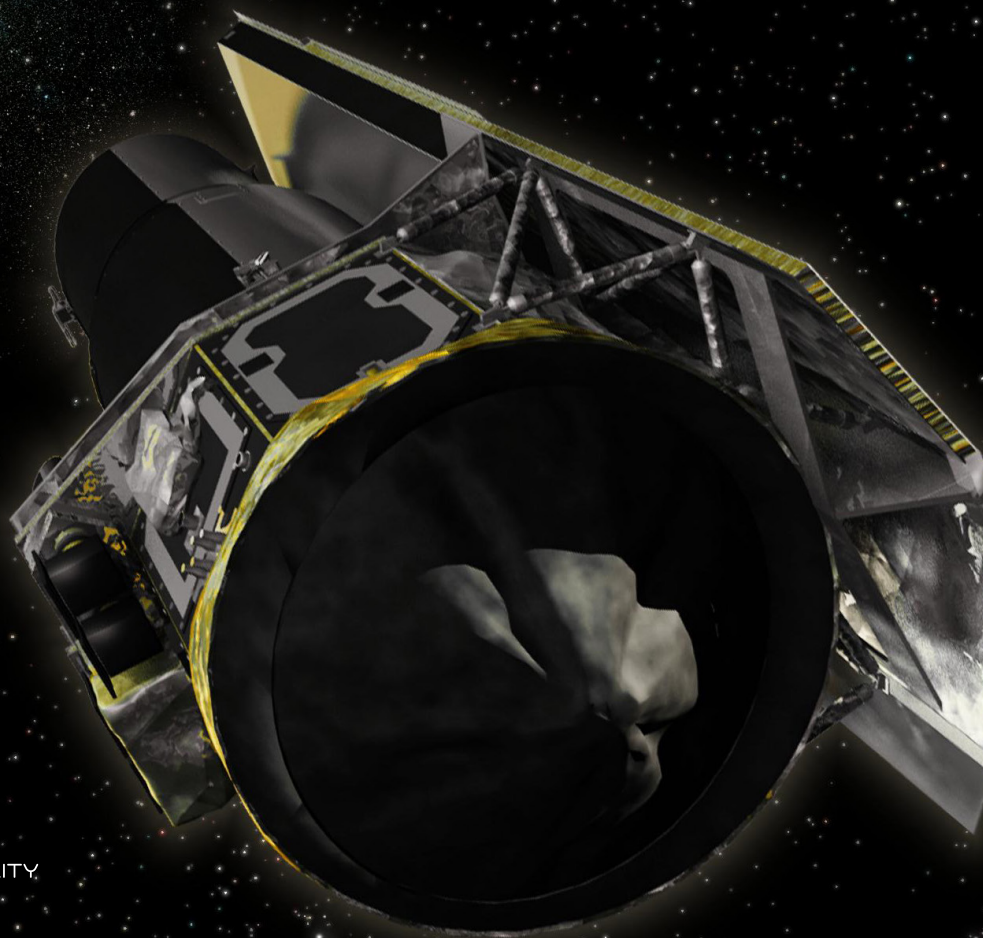
PANEL II.

TAKING STOCK OF MULTILATERAL EFFORTS TO BUILD SPACE SECURITY



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TAKING STOCK OF MULTILATERAL EFFORTS TO BUILD SPACE SECURITY

This panel examined past initiatives, mechanisms, and processes relevant to addressing space security concerns and achieving the ultimate objective of PAROS. The panel recognized that lessons and recommendations from such past measures could inform and enhance forthcoming measures to ensure space security.

All panellists agreed that space has changed dramatically over the past few years, something further acknowledged by many States in the Open-ended Working Group (OWG) on Reducing Space Threats through Norms, Rules, and Principles of Behaviour. Panellists highlighted a positive development: the growing realization that every State is a stakeholder in space security. As such, panellists acknowledged the need for broad, inclusive discussions that take into account the perspectives of non-State actors. One panellist remarked that future generations should also be taken into consideration in such discussions.

Another panellist acknowledged that the existing legal and normative framework for civilian and security-related space activities must be protected and built upon. The same panellist noted the applicability of wider international law such as the Charter of the United Nations and international humanitarian law (IHL) to space.

The panel extensively discussed the recently concluded OWG. Panellists positively remarked on aspects of the OWG such as its inclusive, constructive and open debate, the exploration of complementarities between legally binding instruments and non-legally binding instruments, discussions on the behavioural approach to improve space security, and the outcome of a better understanding of contemporary space threats and the richness of ideas shared. Additionally, States at the OWG had discussed the applicability of international law to space, the necessity of exchanging data and information for space situational awareness and space traffic management, and the need to clarify principles such as due regard under Article 9 of the Outer Space Treaty (OST). Panellists regretted that the OWG was unable to produce a consensus report but expressed satisfaction at the progress that was made in the discussions, highlighting the cross-regional cooperation, and conveyed a desire to continue such discussions in the future, in the context of future initiatives for space security.

Panellists delved into the question of complementarities between different processes, especially in light of the upcoming GGE on Further Practical Measures for the Prevention of an Arms Race in Outer Space. The merits of both open (e.g., the OEWG) and closed processes (e.g., the upcoming GGE), with respect to the number and nature of participating representatives, were underscored. One participant from the floor emphasized the role of non-legally binding instruments in contributing to a legally binding instrument on PAROS. One panellist further noted complementarities between space discussions held in Geneva, New York and Vienna. Examples of significant interlinkages between the COPUOS Guidelines on the Long-term Sustainability of Outer Space and the report of the 2013 GGE on Transparency and Confidence-Building Measures in Outer Space Activities were highlighted.

It was advised that promoting engagement and work during the GGE's intersessional period will be extremely important for its success. Delegations across different regions should be involved in intersessional work, and the value of UNIDIR's regional workshops was highlighted as particularly helpful in engaging regions during intersessional periods of the OEWG.

Discussions also focused on the unilateral commitments by 37 States to not conduct destructive direct-ascent ASAT missile testing and resolution A/RES/77/41 which calls on States to make such commitments. One panellist indicated that the OEWG's work facilitated these commitments, and another panellist indicated that the commitment would be even more valuable if all States capable of conducting destructive direct-ascent ASAT tests committed as well. Panellists acknowledged the narrow scope of the commitment as a pragmatic, verifiable initial step towards a potential legally binding instrument on PAROS. One panellist welcomed more narrow, verifiable commitments.

In the discussion it was argued that the resolution is too narrow and should have been introduced before the successful demonstration of destructive direct-ascent ASAT missile testing capabilities. Others countered that the resolution was nonetheless timely.

With respect to the commitment on 'no first placement of weapons in space' (NFP), enshrined in A/RES/69/32, panellists expressed concern over the lack of sufficient verifiability. Nevertheless, participants expressed that non-legally binding initiatives such as the NFP can aid in fostering a more peaceful space environment and help pave the way towards legally binding instruments.

Deliberations revealed differing viewpoints on the merits of a behavioural-based approach to tackling space threats. While General Assembly resolution 76/231 which established the Space Threats OEWG garnered widespread support, a participant from the floor underscored that votes in favour of establishing the OEWG do not necessarily mean that those States support a behaviour-based approach. Panellists discussed how such an approach, which focuses on the development of non-legally binding measures, does not preclude the establishment of legally binding instruments, either in tandem or at a future stage, and that many delegations to the OEWG supported the development of a common understanding regarding the benefits of a behaviour-based approach and how this can complement other initiatives.

PANEL III.

PREPARING FOR SUCCESS IN FUTURE MULTILATERAL SPACE SECURITY INITIATIVES



PANEL III. 

PREPARING FOR SUCCESS IN FUTURE MULTILATERAL SPACE SECURITY INITIATIVES

The OEWG on reducing space threats through norms, rules and principles of responsible behaviours pursuant to General Assembly resolution 76/231 concluded its last session in September 2023. This panel reflected on the recent developments of multilateral discussions around space security and considered possible ways forward.

Panellists first provided context on current space security processes and initiatives such as the OEWG, the upcoming GGE, as well as the voluntary moratorium on ASAT testing and the NFP commitment. It was noted that GGEs are typically smaller closed groups; however, this does not preclude interactions with external non-governmental experts, for example through the convening of intersessional consultations involving multilevel stakeholders or the solicitation of inputs from Member States. The output of GGEs also varies between making recommendations on issues at the request of the General Assembly, elaborating concepts on future intergovernmental negotiations, reviewing and expanding existing United Nations mechanisms, and developing norms, rules and responsible behaviour. The upcoming GGE has an identical mandate to the Group convened in 2018–2019. One panellist argued that despite the absence of a substantive report from the previous GGE, experts were able to discuss in-depth concepts that lack common understanding and possible elements for a future legally binding mechanisms on space security, including the use of force in outer space, attacks on space objects, and the transfer of dual-use equipment and materials, among others.

Panellists considered the existence of certain overlaps between GGE discussions and those in other disarmament forums like the OEWG and the Conference on Disarmament and ongoing work in Vienna through COPUOS, which form multiple complementary tracks to pursue space security in parallel. One panellist suggested these tracks could provide a division of labour by separating issues into two frameworks: one on safety-related topics addressed by multilateral entities in Vienna, and another on security-related issues, including arms control and disarmament, addressed in Geneva. The panellist viewed safety and security topics, addressed by different forums, as a Venn diagram with shared issues at the intersection requiring discussion from both perspectives. Alternatively, it was argued that arms control is a possible enabler of disarmament. The panellist suggested that soft law and non-legally binding measures can be used in the interim before legally binding

treaties are agreed upon. The panellist argued that without reasonably verifiable hard law, each space actor will assume it must follow suit when others are developing capabilities—including counterspace capabilities— to preserve its own security.

Hence it was argued the GGE needs to reaffirm the importance of PAROS, build on previous knowledge and proposals, take into account recent failures of consensus, and adopt a comprehensive and holistic approach with an objective balance between the safety and security frameworks. The panellist stressed that safety and security are not mutually exclusive and proposed for future discussions to accept the inclusion of elements from different frameworks and consider interwoven binding and non-binding approaches from the disarmament toolbox.

The panel considered both positive trends and challenges to multilateral initiatives. There was agreement that all States should contribute actively to PAROS in the interest of international peace and security. Increased public attention and reliance on space capabilities show that the international community attaches a high level of importance to space security. It was argued that this was further reflected in the United Nations Disarmament Commission in 2023, which reached consensus in its recommendations of transparency and confidence-building measures (TCBMs), and the Subsidiary Body on PAROS in the Conference on Disarmament in 2022, which adopted a consensus report emphasizing concerted efforts by the international community in “preserving the peaceful nature of outer space and keeping outer space safe, secure, stable and sustainable”.¹ However, panellists highlighted that there remains a lack of common understanding on threats in outer space and divergent approaches to addressing these threats have emerged amid the worsening geopolitical situation.

Some panellists focused on legally binding approaches: specifically, the draft treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (PPWT) and the NFP commitment. One panellist explained that non-legally binding TCBMs act as an intermediate mechanism until a ban on the placement of all kinds of weapons in outer space is implemented. It was further argued that political commitments are declaratory in nature, while treaties are binding. Another panellist identified the PPWT as the only current proposal for a legally binding instrument, further suggesting this is an open document, intended to serve as a basis for future negotiations. Yet another panellist focused instead on the importance of developing TCBMs on norms, rules, and responsible behaviour, indicating that such an approach allows for greater flexibility in crafting solutions to achieve PAROS.

¹ (Advanced Copy) Subsidiary Body 3: Prevention of an arms race in outer space, CD/2308, https://documents.unoda.org/wp-content/uploads/2022/10/CD_2308_SB3.docx

PANEL IV.

PRACTICAL TOOLS TO FACILITATE SPACE SECURITY, SAFETY AND SUSTAINABILITY



PRACTICAL TOOLS TO FACILITATE SPACE SECURITY, SAFETY AND SUSTAINABILITY

Space security, safety, and sustainability cannot be achieved in isolation or through any single initiative. The absence of political will and rising geopolitical tensions can complicate negotiations, but irrespective of progress in multilateral agreements, there exist practical tools the international community can wield to reduce misunderstanding, miscommunication, and miscalculation.

Reiterating the division of labour between security and safety in the United Nations system, panellists converged on the mutually reinforcing nature of transparency, confidence-building, and space situational awareness. The opacity of intent and threat perceptions were acknowledged by the panel as major issues in PAROS. Many panellists saw data sharing and notifications as useful tools which provide transparency and confidence-building. Data sharing allows better tracking of space objects and enables safe manoeuvres in a congested environment. Notifications, for example, of in-orbit testing and launches, inform other stakeholders of space activities which can help avoid inadvertent or accidental escalation.

In this regard, the United Nations Office for Outer Space Affairs (UNOOSA) plays a key role in maintaining the register of space objects and carrying out the substantive work of COPUOS such as supporting the Long-Term Sustainability of Outer Space Guidelines (LTS Guidelines). One panellist argued these measures are not sufficient by themselves and will need to complement legally binding mechanisms beyond norms and unilateral initiatives. More ambitious and sensitive tasks such as addressing the threat of use of force on critical space infrastructure including ground stations and nuclear command, control, and communications systems could merit negative security assurances (a guarantee made by a State that it will not attack or threaten to attack other States).

Some panellists identified international cooperation and better bilateral partnerships as good foundations for progress. Relationship-building can facilitate data sharing and the mutual understanding of policy, boosting transparency and confidence-building. One panellist remarked that partnerships bring benefits through the sharing of costs, technological capacities, and risk. Through this, all actors can take ownership of space security, safety, and sustainability. To overcome the challenge of partnering with strategic

competitors, one panellist suggested starting with political statements about the non-targeting of third parties and the creation of a joint system of focal points in charge of existing notifications. Such approaches build on established risk reduction centres and national focal points for space launch notifications. In the safety framework, a panellist pointed out that Guideline B.1 in the LTS Guidelines sets up a national focal point network for entities engaged in space situational awareness and calls on Member States to identify authorities responsible for processing incident reports, forecasts, and adopting responsive measures. These tools can provide the basis for Member States to convene, coordinate, and discuss basic principles of space situational awareness to understand each other's perspectives.

One panellist suggested that safety concerns enjoy broader consensus and as such should be prioritized in discussions, also arguing that enhancing space safety can advance discussions on security. However, it was noted that the dual-use and dual-purpose nature of space systems complicates this sequence. One panellist referred to space debris removal as a key example linking ASAT and missile defence capabilities, conflating security and sustainability. Another panellist cautioned against hindering progress on sustainability by raising security concerns, adding that space debris is apolitical.

There remain barriers to the active participation of all delegations in multilateral space security and safety initiatives due to gaps in capacity and understanding of activities in outer space. Panellists cited UNOOSA's register of space objects² as well as the recently developed Lexicon for Outer Space Security³ and Space Security Portal⁴ by UNIDIR and the Secure World Foundation as useful resources to increase shared language and transparency. One panellist asserted that not participating in established standards like registration and notifications could raise concern over the intent of certain actors and require further explanation. The panellist stressed the need for such measures to have built-in mechanisms that promote compliance.

To encourage participation, several panellists indicated that industry growth stemming from stable legislation can incentivize engagement and adherence with international measures of all stakeholders in a manner that fosters space sustainability. One panellist suggested that Member States with robust regulations attract more investment and partnerships while operating on a level playing field with others adhering to international treaties. Another panellist pointed out that academic research for many Member States is the gateway to building scientific and technical capacity in the absence of policy.

2 Space Object Register, UNOOSA, accessed 9 October 2023, <https://www.unoosa.org/oosa/en/spaceobjectregister/index.html>

3 Almudena Azcárate Ortega and Victoria Samson, A Lexicon for Outer Space Security, UNIDIR (2023), <https://unidir.org/publication/a-lexicon-for-outer-space-security/>

4 Space Security Portal, UNIDIR, accessed 9 October 2023, <https://spacesecurityportal.org/>

PANEL V.

THE IMPORTANCE OF GLOBAL DIVERSITY, INCLUSIVENESS AND MULTILATERALISM FOR SPACE SECURITY



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PANEL V. 

THE IMPORTANCE OF GLOBAL DIVERSITY, INCLUSIVENESS AND MULTILATERALISM FOR SPACE SECURITY

International, intra- and inter-regional cooperation, along with diversity, inclusiveness, and multilateralism, should be considered in efforts towards achieving PAROS. This panel examined approaches and mechanisms embodying those principles and their lessons for space security.

Serving as a backdrop to discussions, panellists acknowledged the rapid pace of change in space, the increasing diversity and number of actors, technological developments, and evolving interests and threats. One panellist suggested these trends were compounded by new uses of space, for example in upcoming missions to the Moon and Mars, as well as the issues raised by space mining. Constructive cooperation in areas such as human spaceflight and the International Space Station was noted, as well as commercial entities competing to obtain profit. It was suggested that the greatest risk is the transposing of terrestrial tensions into space.

The panel discussed the specificities of regional concerns arising from, inter alia, geography, stage of development, and culture. One panellist highlighted that many African States are building space capabilities, programmes, and institutions which will be critical for the region's development. Another panellist highlighted Latin American States' historical participation in COPUOS and involvement in drafting the five space treaties and the increasing engagement by Latin American and Caribbean States in global space governance. It was noted that 12 Latin American States have reaffirmed the applicability of existing international law, including IHL, to space.

All panellists agreed that cooperation and collaboration are important. Examples of successful endeavours include the upcoming Asia-Pacific Regional Space Agency Forum and UNOOSA's Space Law for New Space Actors programme. Africa's partnerships with the European Space Agency (ESA), the US National Aeronautics and Space Administration (NASA), and the Japan Aerospace Exploration Agency (JAXA) were highlighted as important in the establishment by the African Union of the African Space Agency. Another example of regional collaboration are workshops focused on raising awareness and encouraging States within different regions, such as Latin America, ASEAN, or Africa, to come together

and agree on common regional perspectives on various aspects of space security. Such engagements ensure that the perspectives of emerging spacefaring States are accurately reflected in PAROS.

It was recognized that efforts across the national, regional, continental, multilateral, and global levels will be required to address pressing topics such as space traffic management, the further development of space law, and cybersecurity. On space law, the European Union's proposal for a Code of Conduct for Outer Space Activities was held as one example of regional involvement. One panellist stressed the necessity of legal instruments to ensure the peaceful use of space.

Panellists acknowledge the necessity of diversity and inclusiveness. One panellist promoted the notion of 'space justice' to ensure that space sciences and technologies benefit all societies. To that end, the space divide between experienced and emerging spacefaring States should be bridged, States' cultures and histories should be accounted for in the implementation of national and international policy and legal frameworks, non-State actors should be included in the process, and space frameworks need to be continuously updated to ensure their sustainability and applicability.

The panel discussed how girls and women, as well as disadvantaged groups, should be empowered throughout space processes. States were encouraged to include a gender perspective into applications of IHL and space security. It was noted that the Women, Peace, and Security agenda, which includes gender discussions, is pivotal in delineating power privileges and profoundly contributes to efforts towards equality and avoiding prejudice. In this context, UNIDIR's Gender Programme was also highlighted as valuable in contributing to gender equality in disarmament, alongside the work of other organizations such as Project Ploughshares and the Stockholm International Peace Research Institute.

Extensive discussion was held on international law and IHL with regard to space. Significant emphasis was placed on the grave civilian and humanitarian concerns over an outbreak of conflict in space due to the reliance on space systems for critical civilian infrastructure, services, and more broadly, everyday civilian life. Panellists welcomed further discussions on the nexus between human security and space security.

It was noted that there are ongoing discussions at the national and multilateral levels on the applicability of IHL to space, which one panellist finds encouraging. The expert participation of the International Committee of the Red Cross in these processes was acknowledged. One panellist recommended the avoidance of any military operations that would affect space systems essential for civilian services, and the identification of space systems fundamental for humanitarian activities and activities protected under IHL, such as medical services. It was stated that the recognition of IHL in space does not encourage the weaponization of space as States remain governed by the Charter of the United Nations and the applicable international laws on the use of force. Further, it was acknowledged that States (and the broader international community) have a role in deciding specific elements of the applicability of IHL to space.

PANEL VI.

BUILDING COMMON UNDERSTANDINGS BETWEEN STAKEHOLDERS



BUILDING COMMON UNDERSTANDINGS BETWEEN STAKEHOLDERS

This panel brought together representatives of different stakeholder communities to discuss means to exploit synergies and foster common understandings with a view to achieving PAROS and bolstering space security for all.

From the point of view of the private sector, one panellist expressed the difficulty for industry to grasp regulatory parameters around commercial services since governments seek to utilize them to boost their own national security architecture. The panellist indicated that it was unclear, for instance, whether commercial entities are designated as targets of attack in an armed conflict or in grey zone activities. Another challenge was also highlighted: understanding the diverse views of commercial actors on space security. The panellist said some companies see the current competitive situation as an opportunity for more defence contracts, while others see it as an impediment to operating in space due to the lack of consensus on active debris removal. Another panellist said commercial space activities frequently lack a clear regulatory home, and their goals may conflict with security objectives of national governments.

As for opportunities, panellists agreed that commercial actors have an interest in space security, safety, and sustainability, and numerous companies are leading efforts to shape norms and share space situational awareness data among industry operators. As such, States should better communicate their planned operations to private sector actors via regulations and policy. Informed dialogue involving such actors also increases a sense of responsibility and urgency in workforces. To this end, one panellist discussed the necessity of creating a safe space under the Chatham House rule for multilevel stakeholders to discuss and spread awareness of respective approaches, to build common understanding and practices. The panellist also proposed for the permanent and sustainable integration of these stakeholders into multilateral forums, such as through platforms for private sector actors to make unilateral commitments. Another panellist proposed that industry participation should be explicitly included in the mandate of future processes to ensure active engagement.

One panellist introduced the International Telecommunication Union (ITU) model as it provides precedence for such membership. The panellist explained that the ITU comprises

193 Member States and around 1,000 academics and private sector members with the right to participate in preparatory work of ITU processes. While only Member States negotiate and make decisions, non-State members can chair meetings, write proposals, and conduct studies on key items of discussion. The panellist further described the ITU's tripartite legal system of stable international telecommunication laws with high-level principles, unstable legally binding treaties which are reviewed quadrennially, and non-legally binding standards approved by Member States. Unless Member States oppose the quadrennial review process, they are bound by law to automatically consent to participating in revisions. Outcomes in the ITU are technically not conditional upon consensus, since one or more Member State can call a vote of simple majority to overcome stalemate. It was elaborated that delegations compromise between agenda issues and allocate unripe items to the subsequent review process. The panellist recommended the consideration of the ITU model's replicability in outer space discussions to tackle the hard law or soft law debate among stakeholders. In addition to previously identified challenges, it was suggested that technical and scientific opinions may be entangled with political decisions, therefore rendering theoretical scenarios detached from viable solutions for policymaking. Assigning clear and non-overlapping mandates for governments and technical experts will alleviate this problem, which is also a useful approach for examining space law.

According to one panellist, solutions to address space security concerns can no longer be framed as either hard law or soft law based. The panellist addressed misunderstandings in space law, including the notion of soft law being a precondition to hard law and TCBMs being the most practical approach for space security governance at present. They argued that the relationship between these frameworks should be examined on a case-by-case basis, and TCBMs alone cannot be used to determine the boundaries of legal or illegal behaviours. Therefore, a combination of hard and soft laws should be studied by interpreting the existing legal framework to ensure mutual complementarity. Some panellists agreed that the international community should consistently apply space law in the context of broader international law, and leverage capacity in related areas such as information and communication technology security.

One panellist reflected the fear of some States that normative approaches are diversionary tactics for achieving geopolitical and strategic gains. Given the lack of consensus at the OEWG and the historical stalemate of the past 45 years, the panellist stressed the need for fresh thinking on holistic approaches with respect to security for all. Another panellist remarked on the complexity of implementing space security treaties, and that unfamiliarity with existing mechanisms can disadvantage even good faith actors. To foster common understanding, panellists suggested the prioritization of capacity-building, impartial assistance via United Nations bodies, multi-stakeholder engagements using a bottom-up approach, and simultaneous action among all actors in advancing the peaceful use of outer space.

KEY TAKEAWAYS



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KEY TAKEAWAYS

Understanding the relationship and complementarity between space safety and security

Over the last four decades, within the framework of the United Nations, discussions related to the peaceful uses of outer space and space safety have been taking place in forums separate from the discussions surrounding space security. Across both days of discussion at the 2023 Outer Space Security Conference, there were different perspectives shared on topics of both space safety and security. Moreover, the diverse makeup of expert speakers showcased that this framing of the issues is not universal nor always realized and understood in practice.

Some speakers argued that different tracks in the United Nations system have specific goals and the separation of discussion allows for progress in different tracks: even when one track may lose momentum, others can continue to make headway. However, many speakers pointed out inherent and unavoidable overlaps across the topics and different tracks, as was the case with issues such as space debris, data sharing, timely launch notifications and information exchange. Speakers also discussed the potentially mutually reinforcing nature of process outcomes, such as between the consensus of the GGE on TCBMs for Outer Space Activities and the LTS Guidelines. While respecting the internal structures and mandates of United Nations bodies, the international diplomatic community should be prepared to work within but also across structures dealing with space issues in order to address cross-cutting issues as they arise, in order to work towards ensuring a peaceful outer space environment.

Ensuring synergy between space security processes

Discussions of this year's conference took place between two important United Nations processes for advancing space security: the OEWG on reducing space threats through norms, rules and principles of responsible behaviours, which came to a close on the first of September, and the GGE on further practical measures for the prevention of an arms race in outer space opening 20 November 2023. Although discussion was held over the procedural differences between an OEWG and GGE process, there was consensus that the different processes in and of themselves were useful to advancing international security dialogue, and in particular space security goals. Many participants suggested that the processes themselves and their respective approaches as stated in their mandates are not mutually exclusive. What most speakers emphasized was the need to ensure synergies between these processes by building on previous knowledge, proposals and established space treaties. It was also stressed that synergy could be achieved by adopting a comprehensive and holistic approach with an objective balance between these frameworks. Future discussions should accept the inclusion of elements from different frameworks and consider interwoven binding and non-binding approaches from the disarmament toolbox.

Taking advantage of practical tools for space security

Despite the lack of a comprehensive legal framework specifically focused on space security, stakeholders are not without useful tools to facilitate a more transparent and collaborative space environment. One example highlighted by participants and panellists was the UNOOSA register of space objects. Additional examples included formal initiatives such as UNCOPUOS' LTS Guidelines, and other TCBMs. Furthermore, participants recognized the value of materials provided by other entities such as UNIDIR's and Secure World Foundation's Lexicon for Outer Space Security and Space Security Portal, and the Secure World Foundation's Counterspace Capabilities Report. The availability of such resources was deemed useful to increase shared language, understanding and information exchange between stakeholders. Moreover, active participation and contributions where applicable by States to such tools could lead to established good practices for increased stability and predictability. Other tools of diplomacy such as bilateral and multilateral partnerships and data-sharing agreements were discussed as progressive steps for fostering trust and relationship-building.

The need for global inclusivity and diversity

The space environment is as diverse as it is far-reaching. Moreover, the makeup of stakeholders in space has seen a dramatic shift since the creation of the foundational international space governance architecture of the last century. Striving for inclusive participation in and access to multilateral discussions is paramount for the future creation of effective and enduring space security initiatives. This means consideration for the variety of non-governmental stakeholders which exists, including industry, academia, and civil society, while also considering different geographic bases and gender.

Bottom-up regulatory measures initiated from practitioners and industries with technical expertise could help ensure measures can feasibly be implemented. Moreover, best practices shared across stakeholders could lead to more permanent avenues of collaboration and engagement. The positive outcome of ensuring inclusivity would be an expansion of the ideas, resources, and initiatives that the diplomatic community would have at its disposal to build solutions for ensuring that space remain a peaceful environment.

Switzerland, 2023. Outer Space Security Conference

L. CESARI

R. MORELLO

P. LEGAI

ANNEX:

CONFERENCE
PROGRAMME



OS23

OUTER SPACE SECURITY
CONFERENCE 2023



2023 OUTER SPACE SECURITY CONFERENCE

Day 1, 13 September 2023

10.30–11.00 CEST

Conference Opening

Opening remarks

- Robin Geiss (Director, UNIDIR)

Keynote address

- Guy Ryder (Under-Secretary-General for Policy, Executive Office of the Secretary-General, United Nations)

11.00–12.30 CEST

Panel I – Mapping space threats, risks and challenges

Panellists

- Brian Weeden (Director of Program Planning, Secure World Foundation)
- Andrey Shabalin (Counsellor, Permanent Mission of the Russian Federation to the United Nations Office and other international organizations in Geneva)
- Rania Toukebri (Project Manager, Airbus Defence and Space)
- Joanne Wheeler (Managing Partner, Alden Legal)

Moderator

- Sarah Erickson (Research Assistant, Space Security and WMD Programmes, UNIDIR)

13.30– 15.00 CEST

Panel II – Taking stock of multilateral efforts to build space security

Panellists

- Hellmut Lagos (Consul of Chile to La Paz, Bolivia & Chair of the OEWG)
- Clive Hughes (Head of Space Security and Advanced Threats, FCDO)
- Carine Claeys (EU Special envoy for Space / Head of the Space Task Force)

Moderator

- Peter Martinez (Executive Director, Secure World Foundation)
-

15.30–17.00 CEST

Panel III – Preparing for success in future multilateral space security initiatives

Panellists

- Bassem Hassan (Minister Plenipotentiary & Director, Department of Disarmament and Peaceful Uses of Nuclear Energy, Egyptian Ministry of Foreign Affairs)
- Michael Spies (Deputy Chief, Geneva Branch of the Office for Disarmament Affairs)
- Jessica Tok (Space Policy Analyst, United States Department of Defense)
- Konstantin Vorontsov (Deputy Director of the Department for Non-Proliferation and Arms Control, Ministry of Foreign Affairs of the Russian Federation)
- Jian Shen (Ambassador for Disarmament Affairs of China)

Moderator

- Almudena Azcárate Ortega (Researcher, Space Security and WMD Programmes, UNIDIR)

Day 2, 14 September 2023

10.30–12.00 CEST

Panel IV – Practical tools to facilitate space security, safety and sustainability

Panellists

- Dmitry Stefanovich (Research Fellow, Primakov National Research Institute of World Economy and International Relations (IMEMO), Russian Academy of Sciences)
- Andrew Peebles (External Relations Officer, United Nations Office for Outer Space Affairs)
- Juliana Suess (Research Analyst and Policy Lead on Space Security, RUSI)
- Krista Langeland (Senior Physical Scientist, RAND)

Moderator

- Victoria Samson (Washington Office Director, Secure World Foundation)

13.00–14.30 CEST

Panel V – The importance of global diversity, inclusiveness and multilateralism for space security

Panellists

- Pascal Legai (Senior Security Advisor to ESA DG, European Space Agency)
- Romina Morello (Regional Legal Advisor for the Americas, International Committee of the Red Cross)
- Noelle Riza Castillo (Director of the Space Policy and International Cooperation Bureau, Philippine Space Agency)
- Andre Nonguierma (Chief of the Geospatial Information Section at the United Nations Economic Commission for Africa)

Moderator

- Laetitia Cesari (Consultant, Space Security and WMD Programmes, UNIDIR)

15.00–16.30 CEST

Panel VI – Building common understandings between stakeholders,

Panellists

- Aya Iwamoto (Vice President, Policy and Government Relations, Astroscale Japan)
- Guoyu Wang (Associate Professor and Dean of the Academy of Air, Space Policy and Law, Beijing Institute of Technology; Founder, Beijing HarmonizeSpace Consultancy)
- Alexandre Vallet (Chief, Space Services Department, Radiocommunication Bureau, International Telecommunication Union)
- Hannah Ashford (Managing Director, The Karman Project)
- Claudio Leopoldino (Head of the Division for Disarmament and Sensitive Technologies, Brazil Mission to the United Nations, Geneva)






Moderator

- James Revill (Head of Programme, Weapons of Mass Destruction and Space Security, UNIDIR)

Concluding remarks

- Cécile Aptel (Deputy Director, UNIDIR)



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