NMMUN 2025

United Nations Office for Outer Space Affairs (UNOOSA)

Letter from the Chairs!

"The unknown is just the incredible waiting to be known."

Dear Delegates,

We are honored to welcome you as members of the **United Nations Office for Outer Space Affairs**, otherwise known as UNOOSA, for the NMMUN conference of 2025! As your chairs, we, Lianne and Pearl, are excited to see how you navigate discussions and exercise diplomacy in this council.

In this council, you'll be participating as your respective delegations to discuss a vast variety of issues in great need of action. From the dangers of space weaponisation, to the consequences of unregulated space mining, we urge you to take matters into your own hands and pass informed decisions.

As we explore the aspects of the wide, vast and wonderful outer space, you will be required to think like true diplomats – analyse every argument, participate in decision-making and get your point across even in the most heated of unmods. Considering your individual positions, we encourage you to abide by your delegation's stances, while actively engaging in the council's procedure.

Whether you're a first-time delegate or a seasoned MUN participant, we urge you to embrace the unexpected and express your innovation, as you take on the responsibility of making creative yet rational decisions that shape the future of the world as a whole.

We look forward to seeing how you take on these challenges and progress through the conference. Decide wisely, delegates, for the fate of this world and the space beyond it lies in your hands.

Best Regards

Lianne John and **Pearl Goyal**

(Chairs of UNOOSA)

History of the committee

The United Nations Office for Outer Space Affairs (UNOOSA) is an office of the U.N. Secretariat that promotes and facilitates peaceful international cooperation in outer space. It helps developing nations use space science and technology for sustainable socioeconomic development and seeks to create or improve the legal and regulatory frameworks for space activities.

The Office was created in 1958 to support and counsel the UN General Assembly's ad hoc Committee on the Peaceful Uses of Outer Space (COPUOS), which was created to address the legal and scientific considerations of space exploration and utilisation for the good of humanity. The Committee was made permanent the following year. Prior to moving to the United Nations Office in Vienna in 1993, UNOOSA underwent a number of institutional adjustments.

As the secretariat of COPUOS, the Office is responsible for helping implement the major international treaties, legal principles, and General Assembly resolutions that together comprise space law. Other duties include advising governments and nongovernmental organizations on space law; maintaining a registry of vessels and objects launched into space; convening forums to discuss various space-related matters; and sponsoring programmes that provide access to space technology.

In order to carry out its mission of encouraging broad and peaceful worldwide participation in space, UNOOSA launched projects and programs at the beginning of the twenty-first century. To encourage compatibility, interoperability, and transparency among all satellite navigation systems—especially for developing countries—the International Committee on Global Navigation Satellite Systems (ICG) was founded in 2005. The UN-SPIDER program was established the following year to give developing nations an easily accessible platform for utilising space-based technology for emergency response and catastrophe management. To support the program's efforts, two offices were set up in Beijing, China, and Bonn, Germany.

Council Overview

The United Nations Office for Outer Space Affairs (UNOOSA), in partnership with the Committee on the Peaceful Uses of Outer Space (COPUOS), works to promote the safe and peaceful use of outer space. The Office plays a supporting role by helping member states develop shared rules and best practices for space activities. The UN General Assembly has adopted several resolutions on the “Prevention of an Arms Race in Outer Space” (1993, 2009, 2023), which prohibit the placement of weapons in orbit and promote transparency, trust, and cooperation among nations. These measures highlight the UN’s commitment to preventing conflict in space and ensuring it is used only for peaceful purposes.

TOPIC 1: Militarisation of Space: Drafting a Treaty to Prevent Space Weaponisation

Introduction

Space technology has changed from being a domain for scientific study to a crucial arena for strategic, commercial, and military competition in recent decades due to its rapid advancement. What was once the realm of peaceful scientific advancement is now being supplanted by private industry and national security concerns.

As countries expand their space programs and develop increasingly sophisticated capabilities, such as navigation systems, space-based communication infrastructure, and reconnaissance satellites, the line between civilian and military space use has become increasingly blurred. The "militarisation of space," which includes the use of space assets for military support operations like surveillance, GPS-guided weapons, and missile early-warning systems, has already taken place.

Although it does not expressly prohibit the development or use of conventional weapons in space, the 1967 Outer Space Treaty, which designates outer space as the "province of all mankind" and prohibits the use of nuclear weapons in orbit, is one of the founding agreements that still govern space. This legal and regulatory gap raises the possibility of an arms race in orbit, which could have catastrophic consequences for both national security and the long-term sustainability of the space environment. As space grows more crowded, competitive, and contested, the international community must immediately consider new legal frameworks to prevent the escalation of hostilities beyond Earth's atmosphere.

Key Terms

1. **UNOOSA (United Nations Office for Outer Space Affairs)** – UN office that oversees peaceful and sustainable use of outer space, including activities relating to its militarisation and weaponisation.
2. **COPUOS (Committee on the Peaceful Uses of Outer Space)** – UN committee where member states discuss space law, resource use, and guidelines for relevant activities.
3. **Space Weaponisation** – The process of development, placement, or use of weapons in outer space or directed from space that can target objects either in space (like satellites) or on Earth. Includes militarisation, and the employment of offensive or defensive systems.
4. **Dual-use technology** – Civilian space tech (satellites, launch vehicles) that can also serve military purposes.
5. **Anti-satellite weapons** (ASATs) – Systems designed to disable or destroy satellites (direct-ascent missiles, co-orbital systems, lasers, cyberattacks).
6. **Co-orbital weapons** – Weapons deployed in orbit that can maneuver to interfere with or destroy other space objects.

7. **Arms Race**–A competition between nations for superiority in the development and accumulation of weapons.

Timeline

1957 – USSR launches Sputnik 1, ushering in new political, military, technological, and scientific developments. While the Sputnik launch was a single event, it marked the start of the space age and the US-USSR space race.

1958 – UNOOSA created by the UN. The United Nations Office for Outer Space Affairs was created with the goal of promoting the safe and peaceful use of outer space.

1967 – The Outer Space Treaty (OST), which forbids the use of nuclear weapons in space and claims sovereignty, comes into effect. The Treaty was opened for signature by the three depository Governments (the Russian Federation, the United Kingdom and the United States of America) in January 1967, and entered into force in October 1967.

1972 – Few nations have ratified the signed Moon Agreement, which restricts the militarisation of the Moon. However, major space-faring nations *haven't* signed this agreement.

1983 – Concerns about space are rekindled by the US's Strategic Defence Initiative (SDI), igniting a heated debate among both arms experts and public officials over its military and political implications and technical feasibility.

2002 – Various nations (notably the US, China, Russia) pursue dual-use satellite and anti-satellite (ASAT) technologies.

2007 – China conducts an ASAT missile test, destroying its own satellite and creating large debris. Established the growing capabilities of China's space program as well as defensive potential from satellite surveillance in the event of war.

2008 – Russia and China jointly submit a draft treaty (PPWT) to ban weapons in space, proposing to conclude a new international legal instrument through negotiation to prevent the weaponization of and an arms race in outer space. However, this treaty was not adopted.

2014 – The UN General Assembly begins passing resolutions on "No First Placement of Weapons in Outer Space."

2021 – Russia conducts a direct-ascent ASAT test, drawing international criticism. The test lead to immense generation of space debris, putting satellites and future space ventures at risk.

2023 – The UN General Assembly adopts Resolution A/RES/78/19 on preventing an arms race in outer space and promoting transparency.

Key Parties Involved

- **UNOOSA** – Oversees peaceful and sustainable use of space; develops guidelines through COPUOS.

- **COPUOS** – UN committee that discusses legal frameworks, sustainability, and fair resource sharing.
- **USSR** – Placed great emphasis on development of space systems directly responsive to military requirements. The majority of the Soviet space systems provide support to military missions. The USSR's space accomplishments served as an attempt to prove the superiority of their systems over those of the US, fueling tensions and the arms race during the Cold War.
- **US** – Part of the arms race against the USSR, also attempting to prove superiority of their systems. The US continues to pursue a number of military systems, including the development and testing of space-based defenses (specifically space-based kinetic energy [hit-to-kill] interceptors and advanced target tracking satellites).
- **China, Russia** – Made strides in cooperating on outer space arms control to prevent further militarization and arms race. Also participated in the process of preventing the weaponization of outer space, and building rules exchanges and practices in a cooperative manner, despite interests and strategic preferences.
- **India:** A space-capable military state that successfully tested an ASAT capability (dubbed Mission Shakti) in 2019.
- **France, Japan, North Korea, and Iran:** Are increasingly investing in counter-space programs to enhance their national security.

Past Resolutions

- **Outer Space Treaty (1967)**:This treaty remains principally under the concern of space law and was primarily realized in the wake of UN discussions during the Cold War concerning peaceful uses of space. It bans the placement of nuclear weapons or other weapons of mass destruction in Earth's orbit, on celestial bodies, or anywhere else in outer space. However, the lack of restrictions on the use of traditional weapons in outer space leads to a significant question about the presence or lack of an effective and trustworthy safeguard.
- **Resolution 62/37(2007) – Further practical measures for the prevention of an arms race in outer space:** Calls for further efforts to prevent the placements of weapons in outer space and supports negotiations on a legally binding instrument to prohibit the weaponisation of space.
- **Prevention of an Arms Race in Outer Space (PAROS) initiative:** First proposed in 1981, this long standing UN agenda item focuses on actions to prevent a space arms race through transparency and international cooperation. Even while no legally binding treaty has been created under the Outer Space Treaty, PAROS represents continued diplomatic efforts by the UN and its member states to support space as a domain for peaceful purposes and to strengthen existing legal frameworks.
- **Resolution 68/50(2013) – The conference on disarmament:** Highlights the importance of disarmament in addressing issues related to the weaponisation of space, and recommends building a legal instrument to prevent the placing of weapons in space.
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Possible Resolutions

- Establishing a UN-run orbital sensor system that will automatically alert nearby nations when military satellites approach other satellites when they get close. De-escalation on both a diplomatic and operational level will be made possible by this.
- Establishing a system for tracking and notifying people in real time about all military space launches and important orbital maneuvers. All member states would have access to all member states, providing immediate information on military activities to enhance transparency and reduce the risk of misunderstandings or conflict.
- Providing a 72 hours notice to the UN-managed portal by any state that could launch or deploy offensive systems. The system would let all member states know right away, which would make the situation more open and lower the chance of unexpected escalations.

Possible Caucus Topics

1. Should space be viewed as a "global commons" protected from militarisation, or is some level of military use acceptable?
2. Should dual-use technologies be managed without stifling innovation or violating sovereign states' rights?
3. Should private companies involved in this field be governed by international or national laws?
4. Is cyberwarfare a form of space weaponization when it targets space assets?
5. Should developing nations be specially considered so as to prevent them from being disadvantaged by new technologies or treaties?

Guiding Questions:

1. What was the role of the arms race between the USSR and the US in enhancing the possibilities of space weaponisation?
2. What risks does the deployment of weapons in space pose for international peace and security?
3. How effective are existing treaties (like the Outer Space Treaty) in preventing space weaponisation?
4. How does space weaponisation affect civilian / peaceful uses of outer space (i.e navigation, scientific research, etc.)?
5. What are some challenges currently faced in the regulation of space weapons and how can they be overcome?

Appendix (Suggested Resources for Further Research):

- *What's Up With the Militarisation of Space? | StarTalk - Neil deGrasse Tyson* https://www.youtube.com/watch?v=GgywOo1FT3c
- *The Space Race | Smithsonian* https://airandspace.si.edu/explore/stories/space-race

- *China-Russia Cooperation, Submission of PPWT | UNSCEB.* https://www.mfa.gov.cn/eng/wjb/zzjg_663340/jks_665232/jkxw_665234/202406/t20240606_11404985.html
- *EXPERT COMMENT: Why many countries are refusing to sign Moon exploration agreement | Northumbria University Newcastle* https://www.northumbria.ac.uk/about-us/news-events/news/expert-comment-why-many-countries-are-refusing-to-sign-moon-exploration-agreement/

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- *PAROS Treaty | NTI.* https://www.nti.org/education-center/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/
- *Space Debris Mitigation Guidelines | IADC.* https://www.unoosa.org/res/oosadoc/data/documents/2025/aac_105c_12025crp/aac_105c_12025crp_9_0_html/AC105_C1_2025_CRP09E.pdf
- *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies | UNOOSA.* https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html

TOPIC 2: Space Mining: Drafting a Treaty to Regulate Resource Extraction from Space (done!)

Introduction

Space mining – involving the exploration, exploitation and utilization of natural resources on bodies found in space – is becoming increasingly prominent as shortages are faced around the world. Due to the limited nature of Earth's natural resources, the extraction of resources from outer space has presented itself as an attractive solution to maintain availability of natural resources. However when unregulated, this approach has drastic consequences.

Advances in technology are making space mining increasingly feasible, attracting interest from both countries and private companies. However, it raises significant legal, economic, and environmental challenges. The Outer Space Treaty of 1967 establishes that outer space is the "province of all humankind" and forbids national sovereignty claims, but it does not clearly define who can extract or profit from resources, creating uncertainty over ownership and regulation. The United Nations Office for Outer Space Affairs (UNOOSA), through the Committee on the Peaceful Uses of Outer Space (COPUOS), is the main forum where nations discuss these issues and develop guidelines to ensure fair and sustainable use of space resources. Environmental concerns are also critical: mining could generate debris, disrupt celestial bodies, or interfere with scientific exploration.

While these activities support long-term space exploration and colonization, enable new industries such as space-based manufacturing, and potentially lessen environmental pressures on Earth by creating a sustainable off-world resource economy, it is important to note that these benefits come with hazards. Unregulated space mining leads to pollution through generation of space debris, contamination, biosecurity risks and unintended collision risks.

Current international space law governing space mining is outdated and ineffective through its unclear frameworks. As the United Nations Office for Outer Space Affairs, it is crucial to devise a resolution to target all these flaws in governance by proposing effective solutions to tackle the concerned risks, while seeking to balance innovation and economic opportunity with international cooperation, sustainability, and the peaceful use of outer space for the benefit of all nations.

Key Terms

1. **UNOOSA (United Nations Office for Outer Space Affairs)** – UN office that oversees peaceful and sustainable use of outer space, including space mining.

2. **COPUOS (Committee on the Peaceful Uses of Outer Space)** – UN committee where member states discuss space law, resource use, and guidelines for activities like mining.

3. **Space Resources / Space Mining** – Extraction of materials such as water, rare metals, or minerals from celestial bodies like asteroids or the Moon.

4. **Dual-Use Technology** – Technology used for both civilian (scientific, commercial) and military purposes, relevant in space resource extraction and monitoring.

5. **Space Debris** – Man-made objects in orbit, which can be worsened by mining or satellite operations, a key environmental concern.

6. **Environmental Protection in Space** – Efforts to prevent contamination or damage to celestial bodies during mining or other activities.

Timeline

1967 – Outer Space Treaty enters into force. Establishes that outer space, including celestial bodies, is not subject to national appropriation; but doesn't settle all questions about resource extraction.

1979 – Moon Agreement is open to signatories. Includes provisions that any exploitation of resources on the Moon (and celestial bodies) should be done under an "international regime." However, crucially, major spacefaring states have *not* ratified it.

2007 – UNOOSA establishes the Working Group on Space Resources under the Committee on the Peaceful Uses of Outer Space (COPUOS). This group aims to develop international guidelines and frameworks for the exploration and utilization of space resources.

2005 – Hayabusa recovers dust samples from Itokawa asteroid. Human interest in space shifted from the moon to asteroids, following 1972's Apollo 17 mission, the last which saw people walk on the surface of the Moon. This interest was initially scientific.

2010 – The International Institute of Air and Space Law (IIASL) at Leiden University, in collaboration with UNOOSA, publishes a report on the legal aspects of space mining, highlighting the need for clear international regulations.

2015 – U.S. "Commercial Space Launch Competitiveness Act" (also known as the SPACE Act) passes into U.S. law. This law explicitly gives U.S. companies the right to own, sell, and use the resources they extract in space, within limits.

2017 – Luxembourg passes the Space Resources Act, providing a licensing regime for companies extracting space resources, enshrining property rights over those resources (once extracted). It's one of the first national laws of its kind.

2021 – UNOOSA publishes updated Long-Term Sustainability (LTS) Guidelines, which include recommendations relevant to responsible space mining practices and environmental protection.

2023 - Saudi Arabia announces withdrawal from the Moon Agreement. This withdrawal (effective Jan 2024) is interpreted in some quarters as possibly because of conflicts with its alignment with newer regimes like the Artemis Accords, and its space resource ambitions.

Key Parties Involved

- **UNOOSA** – Oversees peaceful and sustainable use of space; develops guidelines through COPUOS.
- **COPUOS** – UN committee that discusses legal frameworks, sustainability, and fair resource sharing.
- **USA** – Supports commercial space mining; passed 2015 law giving companies rights to extracted resources. Major spacefaring nation that *hasn't* signed the Moon Agreement. US-based companies such as SpaceX and Blue Origin provide potential support for mining infrastructure.
- **Luxembourg** – One of the initial countries to pass regulations governing space mining, and continues to promote a national legal framework for private space mining companies.
- **China, Russia, Japan, UAE, EU** – Developing policies, technology, and research for space resource extraction.
- **European Space Agency (ESA)** – Collaborates with UNOOSA on sustainability and environmental protection in space mining.

Past Resolutions

- **The Outer Space Treaty (1967)**: Amongst it's various provisions, certain principles impose regulations on space mining. For instance, The Treaty states that the exploration/use of outer space shall be carried out for benefit and in the interests of all countries, avoiding harmful contamination of space and celestial bodies, etc.
- **The Liability Convention of 1972:** Asserts that States are ultimately responsible for the actions of private space actors under their authority and/or launching from their territory of facility.
- **Artemis Accords (first signed in 2020):** Spearheaded by the US, signed by Australia, Canada, Italy, Japan, Luxembourg, UAE, UK and US. Reaffirms certain principles of space treaties and concretises certain developed norms including peaceful exploration, transparency, registration of space objects, preserving heritage, extraction of space resources in compliance with the OST, reducing orbital debris, etc.
- **Hague Building Blocks (2019):** The Hague International Space Resources Governance Working Group (the Working Group) adopted the Building Blocks for the Development of an International Framework for the Governance of Space Resource Activities.

- **Moon Agreement (1979):** adopted by the United Nations in 1979 and came into effect in 1984, establishes rules regarding the use of the Moon and other celestial bodies by States. The Agreement builds on the Outer Space Treaty and asserts the Moon and its resources are the "common heritage of mankind," meaning that no nation or private entity has an ownership claim over the Moon or its resources.

Possible Resolutions

- Establishing a temporal cap on mining an area or restricting the number or scope of operations by a single entity with regards to outer space.
- Extending the Sustainable Development Goals (SDGs) beyond Earth. (Eg: Such an approach requires that both commercial and state actors take action to lessen harmful consequences so future ventures do not require additional expenditure to deal with those of previous ventures.)
- Introducing and enforcing strict regulation on post-extraction clean up to mitigate the risk of contamination and space debris, as the space mining industry develops.

Possible Caucus Topics

1. Should there be establishment of a single uniform treaty specifically governing space mining across all nations, instead of different policies tailored to a nation's capabilities?
2. Should special efforts be made to aid developing nations to ensure they aren't disadvantaged by new technologies or treaties?
3. Could space mining lead to geopolitical tensions or "resource nationalism" in space?

Guiding Questions

1. What protocols should be included in a new contract to ensure compliance and validation?
2. Why is regulating space mining important for the future of space activities?
3. What risks could arise if space mining remains largely unregulated?
4. What do existing treaties (Outer Space Treaty, Moon Agreement, etc.) say about resource extraction, and where are the gaps?
5. How do national laws (e.g., U.S., Luxembourg, UAE, Japan) regulate space mining, and how do they align or conflict with international law?
6. In what ways do international initiatives like the Artemis Accords (led by the U.S. and partners) contrast with countries that prefer UN-based approaches (such as Russia or China)?

Appendix (Suggested Resources for Further Research):

- *Unlimited Resources From Space – Asteroid Mining | Kurzgesagt – In A Nutshell* https://www.youtube.com/watch?v=y8XvQNt26KI
- *Environmental Consequences of Unregulated Asteroid Mining | Consensus* https://consensus.app/search/what-are-the-environmental-consequences-of-unregul/NvIKPB6lRX69dCtRddojWA/
- *Working Group on Legal Aspects of Space Resource Activities | UNOOSA*

https://www.unoosa.org/oosa/en/ourwork/copuos/lsc/space-resources/index.html

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- *The International Legal Framework for Space Mining Is Becoming Less of An Alien Concept | Thomson Reuters* http://arbitrationblog.practicallaw.com/the-international-legal-framework-for-space-mining-is-becoming-less-of-an-alien-concept/