

United Nations Committee on the Peaceful Uses of Outer Space (COPUOS)



**Agenda: Preventing Space Pollution and Managing Space
Debris to Ensure Safe and Sustainable Use of Earth's Orbit**

Letter from the Executive Board

On behalf of the Executive Board, we are delighted to welcome you to the United Nations Committee on the Peaceful Uses of Outer Space at Junior Amity Model United Nations 2025. It is an honor to have you on this platform where meaningful discussions and collaborative problem-solving come to life.

The agenda requires research, understanding of domestic policies, and thoughtful historical and modern context. As delegates, you have the chance to represent your perspective, engage in discussion, and develop constructive solutions that inspire diplomacy, cooperation, and creativity.

Remember, being a delegate is not only about debating it's about learning, growing, and sharing the experience. Every country and voice matters. The Executive Board will be here to support you with research, rules, or documentation throughout the conference.

This background guide is meant to give you direction and insight into the agenda. Use it as a starting point for your research, think critically, negotiate diplomatically, and collaborate effectively. We look forward to witnessing your ideas, passion, and leadership in action. **Best of luck!**

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Committee Introduction

The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the General Assembly in 1959 to govern the exploration and use of space for the benefit of all humanity: for peace, security and development. The Committee was tasked with reviewing international cooperation in peaceful uses of outer space, studying space-related activities that could be undertaken by the United Nations, encouraging space research programmes, and studying legal problems arising from the exploration of outer space.

The overall mandate of the Committee aims at strengthening the international legal regime governing outer space, resulting in improved conditions for expanding international cooperation in the peaceful uses of outer space. The mandate also specifies that the Committee should support efforts at the national, regional and global levels, including those of entities of the United Nations system and international space-related entities, to maximize the benefits of the use of space science and technology and their applications. Overall, the Committee aims to increase coherence and synergy in international cooperation in space activities at all levels.

Introduction to the Agenda

Every year, space gets busier. Rockets and satellites are being launched by numerous nations and businesses for research, communication, navigation, and weather forecasting. However, a lot of damaged parts are left behind as more and more objects are launched into space. We refer to these as space junk or space debris. They can be hazardous and continue to travel at extremely high speeds around the planet.

These fragments travel quickly and have the potential to strike other spacecraft or satellites. This may result in significant harm and additional debris. Future launches may become unsafe and crowded in space if this continues. This issue, where space junk multiplies due to an increasing number of collisions, is known to scientists as the Kessler Syndrome.

The United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) wants to find ways to keep space clean and safe. Countries all around the world need to work together to stop more debris from being made and to clean up what's already there. We expect delegates to find smart and peaceful solutions to stop space from becoming more polluted. come up with creative solutions that are fair, responsible, and practical, encouraging all countries to cooperate and take care of Earth's orbit together. The goal is to make sure that Earth's orbit stays clean and safe so that future generations can also explore and use space without danger.

Accepted Proofs

Research and documents validating a speech or argument is essential for the committee. However, it is imperative that this research and information is valid and accepted globally as evidence. Hence, here are some of the accepted sources for research and proofs listed below:

1. News sources

News agencies are considered legitimate proofs for facts and statements. All information related to the agenda or the delegate's speech can be validated from these sources.

Examples: Reuters: <https://www.reuters.com>

AlJazeera: <https://www.aljazeera.com>

2. State operated News Agencies

Certain state established and operated new agencies are also viable proof and can be used in the proceedings of the committee.

3. Government Reports

Reports and documents published by Government agencies are considered valid proofs

Examples: NASA: <https://www.nasa.gov/>

ISRO: <https://www.isro.gov.in/>

4. UN Sources

Documents and research papers published by UN bodies are valid pieces of evidence and good starting point for research.

Examples: UNGA: <https://www.un.org/en/ga/>

UNSC: <https://main.un.org/securitycouncil/en>

NOTE: CERTAIN SOURCES ARE CONSIDERED INVALID AND CANNOT BE USED TO VERIFY OR OBJECT ANY STATEMENTS:

1. Websites like Wikipedia
2. AI tools like ChatGPT, Perplexity etc.

How to research?

To start preparing, you need to first understand the term research itself and the role you are to play in the committee. In our case, one must start with understanding the basic terms of the ***agenda: planetary defense, asteroid threats, early warning systems, and global coordinating mechanisms.*** Once you have gained clarity on these basic terms, move on to study the scientific, legal, and diplomatic facets of planetary defense. Write the agenda down somewhere. ***As you break it into parts, try coming up with topics that can be discussed in the committee.*** Find more information about the topics such as the legal aspects, government implications, etc. After the agenda and possible subtopics are established, one should proceed to conduct in-depth research on each of the shortlisted topics. ***Obtain data on topics like scientific feasibility, government ties, and international impact.*** There is no need to panic if the subtopics are fuzzy at first; in most instances, once one starts doing the research, everything gradually starts making sense. Second, there is a need to understand the functioning of some of the existing committees, organizations, and institutions, national and global, that are working on planetary defense activities like NASA's Planetary Defense Coordination Office, ESA's Space Safety Programme, and the United Nations' Committee on the Peaceful Uses of Outer Space (COPUOS) itself. ***It would also be wise to explore missions like DART, Hera, and other international efforts,*** and critically evaluate their respective accomplishments and limitations.

Study the reports, guidelines, and recommendations issued by these organizations, as well as relevant UN treaties and documents such as the:

- Outer Space Treaty (1967)
- Liability Convention (1972)
- Registration Convention (1975)
- Long-term Sustainability Guidelines by COPUOS

Reading these documents will help you understand the legal foundation of space governance and the gaps in current frameworks that can form the basis of your country's policy stance. After this, try to look into case studies that demonstrate real-world examples of space debris and its impact. For example:

- The Iridium–Cosmos Collision (2009) — a major satellite crash that emphasized the need for better coordination.
- The Fengyun-1C ASAT Test (2007) — a reminder of how one country's actions can create thousands of debris fragments.
- The Remove DEBRIS Mission (2018) — showcasing active debris removal technologies.

Analyze what went wrong, what was learned, and how such incidents could be prevented in the future. Case studies will not only strengthen your arguments but also make your proposed solutions more realistic and evidence-based. Throughout your research, always keep the committee's purpose in mind — ensuring the safe, secure, and sustainable use of Earth's orbit. Your ultimate goal as a delegate is to propose implementable, cooperative, and future-oriented solutions that align with your country's interests and international obligations.

Space Pollution and Ensuring Sustainable use of Space

Outer space treaty 1967

The Outer Space Treaty, signed in 1967 was created by the United Nations to make sure that space is used peacefully and safely by all countries. The Outer Space Treaty provides the basic framework on international space law, including the following principles:

- the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;
- outer space shall be free for exploration and use by all States;
- outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;
- States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;
- the Moon and other celestial bodies shall be used exclusively for peaceful purposes
- States shall be liable for damage caused by their space objects; and
- States shall avoid harmful contamination of space and celestial bodies.

Why It Matters Today:

The Outer Space Treaty laid the foundation for the peaceful and responsible use of outer space. However, it was created over five decades ago, when only a few countries were exploring space. Today, with hundreds of satellites being launched by nations and private companies, new challenges have emerged such as space pollution, overcrowded orbits, and growing space debris. These issues were not fully addressed in the original treaty, so many experts believe it should be updated or strengthened to ensure the safe, clean, and sustainable use of Earth's orbit for future generations. Viable and practical solutions need to be came up with and is why this committee is being placed.

Registration Convention

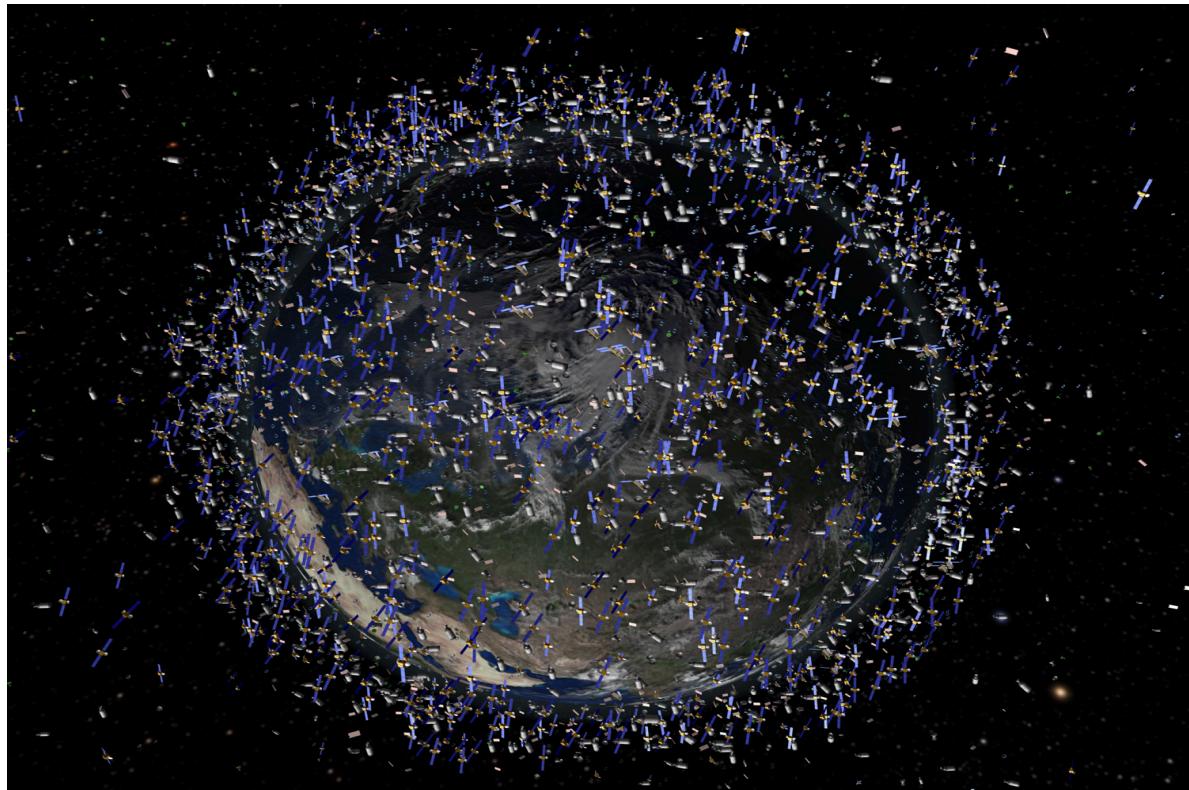
The Convention on Registration of Objects Launched into Outer Space requires member states to register any object being launched by them with the register managed and upheld by the UN COPUOS. This allows for tracking and regulating the amount of objects orbiting earth by said member state. It aims to control and keep in check the actions of all space agencies.



Space debris

Space debris, also known as space junk, refers to man-made objects in orbit around Earth that no longer serve any useful purpose. This includes:

1. Defunct or non-functional satellites
2. Spent rocket stages and boosters
3. Fragments generated from satellite collisions or explosions
4. Small pieces like paint flakes, metal shards, or insulation materials

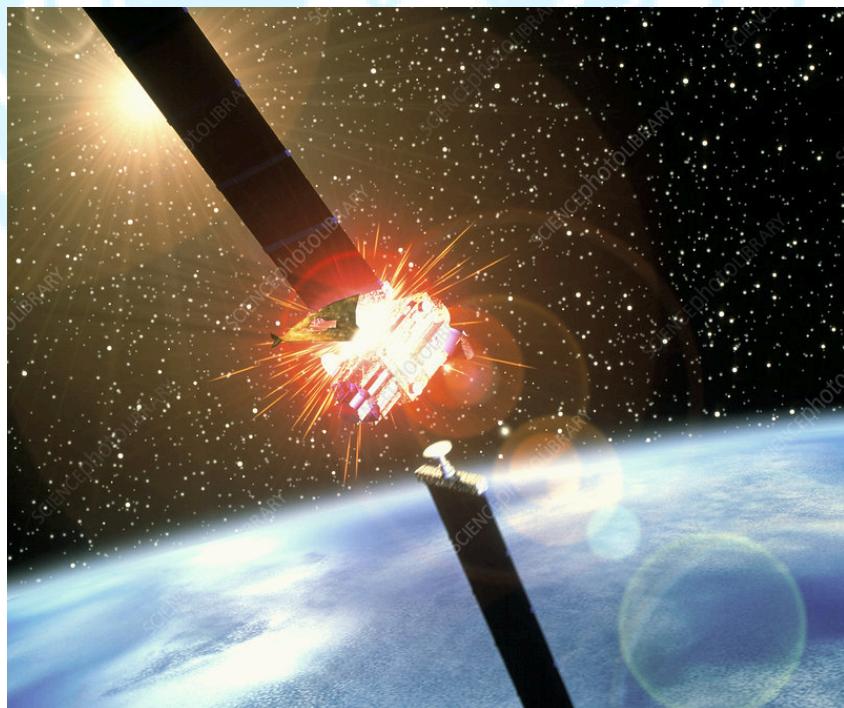


Causes

- Many satellites remain in orbit long after their missions end.
- Upper stages of rockets are sometimes left in orbit instead of being deorbited.
- Accidental collisions between satellites or rocket fragments create more debris.
- Fuel left in old satellites or rockets can explode, producing thousands of fragments.
- Some countries have intentionally destroyed satellites, adding significant debris.
- Small pieces can detach from satellites due to material degradation or micrometeoroid impacts.

Risks And Impacts:

1. Debris can collide with operational satellites, spacecraft, or the International Space Station (ISS), causing serious damage or destruction. Even tiny debris can puncture spacecraft due to its extreme velocity.
2. A chain reaction may occur where collisions create more debris, increasing the probability of future collisions. This could make certain orbits unusable for decades.
3. Many services depend on satellites: GPS, communications, banking systems, TV, internet, and weather forecasting. Damage to satellites from debris can disrupt these services.
4. Space debris poses a serious risk to astronauts aboard the ISS or other spacecraft. Even small particles can be lethal at high speeds.
5. As debris accumulates, launching new satellites or conducting exploration missions becomes riskier, potentially limiting the sustainable use of Earth's orbit.



Safe and Sustainable Use of Earth's Orbit

Think of Earth's orbit as a busy highway above our planet. Satellites use it for communication, GPS, weather forecasts, and scientific research. But as more satellites are launched every year, the "highway" is getting crowded, and there's a higher chance of collisions with space debris. Using orbit safely and sustainably means keeping it organized, clean, and protected, so people in the future can continue using space without danger.

How We Can Keep Orbit Safe:

Prevent Space Pollution – Launch satellites carefully, reduce leftover debris, and safely dispose of old satellites.

Manage Space Debris – Keep track of debris, avoid collisions, and remove large pieces when possible.

Work Together – Countries and private companies should cooperate, follow rules, and share information.

Plan for the Long Term – Design satellites and rockets to last longer and break less, keeping orbit safe for years.

Use New Technology – Try new ideas like debris-cleaning missions, better satellite designs, and systems to avoid crashes.

Why It Matters:

Keeping Earth's orbit safe and sustainable ensures that space can continue helping us with science, technology, and communication, now and in the future.

Questions to consider

- 1- How can countries balance the need for space exploration and satellite launches with the responsibility to prevent space pollution?
- 2- What measures can be taken to ensure that satellites and rockets are disposed of safely after their missions end?
- 3- How can international cooperation be strengthened to track, manage, and reduce space debris?
- 4- What role should private space companies play in preventing space pollution?
- 5- Are existing international treaties (like the Outer Space Treaty of 1967) sufficient to deal with the current space debris problem? If not, what improvements can be made?
- 6- How can developing nations be supported to participate safely and sustainably in outer space activities?
- 7- What technologies or innovations could help clean up or reduce space debris?
- 8- How can education and awareness about space sustainability be promoted among youth and future scientists?