

UNITED NATIONS GENERAL ASSEMBLY

BACKGROUND GUIDE

AGENGA 1: SPACE DEBRIS AND ITS DANGER TO INTERNATIONAL SATELLITES AGENDA 2: IMPROVING AND ENSURING THE SAFETY OF ATOMIC ENERGY PRODUCTION

LETTER FROM THE EXECUTIVE BOARD

Greetings delegates,

As the Executive Board of the United Nations General Assembly, it is our privilege to extend a warm welcome to all the delegates of Mody School Model United Nations 2022.

We believe UNGA one of the most pivotal committees of the United Nations, because of its wide mandate and the variety of topics it covers ranging from International Peace and security, with a focus on the political aspect in addition to reviewing special missions and peacekeeping operations.

Moving specifically on to the committee, the entire Executive Board expects substantive debates based on well-grounded facts and well-researched caucuses as well as an in- depth understanding of the crisis.

The delegates will be marked on a plethora of criteria and the marking will be shared with the delegates directly after the conference gets over. The delegates should remember at all times that it's a great threat for outer space because of space debris and the destructions caused by it. So, one should consider all aspects of it while voicing an opinion or sanctioning the resolution.

Since this is a very broad agenda for the committee to cover in 3 days, we expect the delegates to maintain the flow of the committee in a manner that the committee can cover at least the majority of aspects of the agenda mentioned in this background guide. We expect that the delegates should provide unorthodox solutions to these complex world problems to keep the committee interesting and at the same time should not violate their foreign policy

Lastly, we hope all of you return with fresh experiences, knowledge and most importantly lots of memories.

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With Warm Regards, Chairperson: Anasua

Vice Chairperson: Ridhima Dhanuka

Director: Shriya Gattani

Rapporteur: Aanya Sakhuja

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POSITION PAPER GUIDELINES

The background guide provides you with a framework and structure to continue doing research on your topic and investigating your country's stance. We encourage delegates to further explore the intricacies of the topics and develop creative solutions beyond the background guide.

Position paper are an opportunity for delegates to summarize their research in preparation for the conference. delegates are strongly encouraged to write position paper on each topic. Below is the general structure for papers that can be adapted depending on your country and committee:

I. Topic background: include a brief summary of the topic and outline your country's past involvement and experience with the issue.

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II. Country stance: explain your country's policies and position on the issue, including relevant statistics and research.

III. Proposed solutions: propose and provide further details on possible solutions and identify and analyze potential benefits and drawbacks. Remember that your solutions should reflect your country's policies.

Delegates should write one position paper per topic, with each paper a maximum of one page long (excluding the work cited page). No cover pages. All papers should be single- spaced with standard margins in Times new roman 12pt. Font. Place the following in the top left-hand corner of both your position papers: committee, country, delegate's name, school, and topic. All sources should be appropriately cited.

Position paper should be submitted to ungaipscmsmun@gmail.com Either as a

word document or pdf to the above-mentioned email by 15th

November,2022. Please title the email in file with your committee's name and country. Delegates who do not submit position papers will be ineligible for awards. Questions regarding position paper should be directed to the above-mentioned email.

A. RESEARCH SUGGESTION

1. Read the agenda guide, at least 20 days before the conference and make a note of everything that needs to be understood. Do read the background guide. In case of a crisis always read and look for the analysis and plausible rationale on the updates that may be issued a week before the MUN.

2. Google/search everything and find related documents (UN news articles, scholarly articles) for anything that was not fully understood.

3. After wholly understanding (subject to how in-depth you wish to go for the research), try understanding your allotted country's perspective on the agenda.

4. Make the stance by the country's perspective on the agenda which shall also define your foreign policy (history, past actions etc.)

5. Understand the cues and hints that are given minutely in the background guide that may come in handy while presenting contentions to the committee.

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6. Take a good look at the mandate of the committee as to what you can discuss and what you can do in this council. This point is placed here, just because your knowledge base shouldn't be limited to the mandate of the committee. Know everything; speak whatever the mandate allows.

7. Follow the links given alongside and understand why they were given. Read the endnotes and references.

8. Predict the kind of discussions and on what sub-topics can they take place, thereby analyzing the sub-topic research, you have done and preparing yourself

accordingly. Make a word/page document and put your arguments there for better presentation in council and bring a hard copy of it to the committee.

9. Ask the Executive Board your doubts, if you have any, at least 7 days before the conference using the given email id and make sure to not disclose your allotted country, until you want to understand the policy of your country.

10. Download the United Nations charter, the Geneva conventions of 1949 and additional protocols thereto and other relative treaties and documents are Given.

B. NATURE OF PROOF AND EVIDENCE

Documents from the following sources will be considered as credible proof for any allegations made in committee or statements that require verification:

• Reuters: Appropriate Documents and articles from the Reuters News agency will be used to corroborate or refute controversial statements made in committee.

• UN Document: Documents by all UN agencies will be considered as sufficient proof. Reports from all UN bodies including treaty-based bodies will also be accepted.

• Government Reports: Government Reports of a given country used to corroborate an allegation on the same aforementioned country will be accepted as proof.

COMMITEE INTRODUCTION

The United Nations General Assembly First Committee (also known as the Disarmament and International Security) is the only Main Committee of the General Assembly entitled to verbatim records coverage.

It deals with disarmament, global challenges and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime.

It considers all disarmament and international security matters within the scope of the <u>Charter</u> or relating to the powers and functions of any other organ of the United Nations; the general principles of cooperation in the maintenance of international peace and security, as well as principles governing disarmament and the regulation of armaments; promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.

The Committee works in close cooperation with the <u>United Nations</u> <u>Disarmament Commission</u> and the Geneva-based <u>Conference on</u> <u>Disarmament</u>. It is the only Main Committee of the General Assembly entitled to verbatim records coverage.

The First Committee sessions are structured into three distinctive stages:

- 1. General debate
- 2. Thematic discussions
- 3. Action on drafts

It offers the opportunity for states to build consensus on the issues, to reach common understandings and principles and to agree on norms of behavior. Thus, rather than ensuring "security" through the size of their arsenals, governments can discuss how to best arrive at cooperative security arrangements that minimize spending on weapons, reduce arms production, trade, and stockpiles, and increase global security. This consensus can subsequently be used in other disarmament fora, such as the Conference on Disarmament, where disarmament treaties are negotiated.

TOPIC INTRODUCTION

<u>1. SPACE DEBRIS AND ITS DANGER TO INTERNATIONAL</u> <u>SATELLITES.</u>

INTRODUCTION

Prospects for using small satellites to bring the benefits of space technology to developing countries and discoveries in how to measure and assess the dangers posed by "space debris" were among the main questions discussed at the thirty-third session of the Outer Space Committee's Scientific and Technical Subcommittee, which ended here this morning.

The 61-member Subcommittee, a subsidiary body of the Committee on the Peaceful Uses of Outer Space, also showed signs of a general move towards agreement on convening a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), following several years of debate on the question.

Special focus was given to the use of relatively low cost micro- and small satellites to carry out a number of tasks previously available only through much more expensive space projects. The Subcommittee noted that the small satellites could make significant space capabilities accessible to a wide range of users, including students, engineers and scientists in many countries. It stressed, however, the need to raise awareness of the possible benefits of a national space program and to overcome a lack of adequately trained personnel in some countries and recommended that the United Nations Space Applications Program devote more attention to issues related to micro- and small satellites.

PRINCIPLES RELATING TO REMOTE SENSING OF THE EARTH FROM OUTER SPACE

It resolution was signed on 12 November 1974, in which it recommended that the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space should consider the question of the legal implications of remote sensing of the Earth from space, as well as its resolutions 3388 (XXX) of 18 November 1975, 31/8 of 8 November 1976, 32/196

A of 20 December 1977, 33/16 of 10 November 1978, 34/66 of 5 December 1979, 35/14 of 3 November 1980, 36/35 of 18 November 1981, 37/89 of 10 December 1982, 38/80 of 15 December 1983, 39/96 of 14 December 1984 and 40/162 of 16 December 1985, in which it called for a detailed consideration of the legal implications of remote sensing of the Earth from space, with the aim of formulating draft principles relating to remote sensing,



For the purposes of these principles with respect to remote sensing activities:

(a) The term "remote sensing" means the sensing of the Earth's surface from space by making use of the properties of electromagnetic waves emitted, reflected or diffracted by the sensed objects, for the purpose of improving natural resources management, land use and the protection of the environment;

(b) The term "primary data" means those raw data that are acquired by remote sensors borne by a space object and that are transmitted or delivered to the ground from space by telemetry in the form of electromagnetic signals, by photographic film, magnetic tape or any other means;

(c) The term "processed data" means the products resulting from the processing of the primary data, needed to make such data usable;

(d) The term "analyzed information" means the information resulting from the interpretation of processed data, inputs of data and knowledge from other sources;

(e) The term "remote sensing activities" means the operation of remote sensing space systems, primary data collection and storage stations, and activities in processing, interpreting and disseminating the processed data.

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Some treaties:

Rescue Agreement (1968) Requires States to take steps to rescue and assist astronauts in distress and return them to the launching state, and assist launching states in recovering space objects that return to Earth outside the territory of the launching state.

Liability Convention (1972) Outlines the liability of Launching States for damage caused by their space objects on the Earth or in space, and procedures for the settlement of claims for damages.

Registration Convention (1976) Launching States must maintain a registry of their space objects and provide the UN with information on the objects they launch into outer space.

Moon Treaty (1984) Reaffirms and elaborates OST provisions applied to appropriation and exploration of the Moon and exploitation of resources found on the Moon. Though technically in force, this treaty has been ratified by relatively few countries and is ignored by most.

Technogenic pollution

Efforts to address the problem of the "technogenic pollution" of near space. It covers work done by Russian scientists to observe space debris particles by various means, model the degree of pollution of near space, protect spacecraft from the action of high-velocity particles and reduce the degree of near-space pollution. Proposals for "clean-up" of the satellite-crowded geostationary region include the use of special towing spacecraft to detect, capture and transfer defunct objects to storage orbits, the establishment of space platforms with separable one-time towing modules and the transfer of uncontrollable objects to higher orbits to prevent their descent to Earth.

(*TIP: delegates to find out solutions regarding this)

Inter-Agency Space Debris Coordination Committee

The **Inter-Agency Space Debris Coordination Committee** (IADC) is an international forum of governmental bodies for the coordination of activities related to the issues of natural and man-made debris in space. The primary purposes of the IADC is to exchange information on space debris research activities between member space agencies, facilitate opportunities for cooperation in space debris research, to review the progress of ongoing cooperative activities, and to identify debris mitigation options.

In 2007, the IADC published a set of **voluntary guidelines** designed to reduce the creation of orbital debris. In 2008, most of these guidelines were included in a resolution proposed by COPUOS and passed by the UNGA. Guidelines include:

- 1. Limit production of debris during routine operations.
- 2. Minimize the potential for accidental on-orbit breakups.
- 3. Dispose of spacecraft post-mission.
- 4. Prevent on-orbit collisions.
- 5. Prohibit intentional destruction of satellites.

Kessler Syndrome and the space debris problem

Space debris is a growing public safety problem. As described by the Kessler Syndrome,1 the increasing accumulation of debris will soon hinder and eventually preclude access to outer space unless the trend is swiftly reversed. The Inter-Agency Space Debris Coordination Committee's (IADC) Space Debris Mitigation Guidelines, as adopted by the United Nations (UN) Committee for the Peaceful Uses of Outer Space (COPUOS), are voluntary but are enforced as mandatory regulations by major space powers; however, the guidelines only apply to new debris. The European Space

Agency's (ESA) 2017 Space Debris Conference concluded that existing space debris guidelines are inadequate and must be further strengthened in order to successfully control space debris.

"Space Situational Awareness System"

On 5th April,2022 Fujitsu announced the development and deployment of a new analysis system to calculate orbital courses of space debris for use with the Japan Aerospace Exploration Agency's (JAXA) "Space Situational Awareness System" ("SSA system") for monitoring space debris.

2. IMPROVING AND ENSURING THE SAFETY OF ATOMIC ENERGY PRODUCTION.

INTRODUCTION

The horror of the Second World War, culminating in the nuclear blasts at Hiroshima and Nagasaki, brought home the need to address the nuclear issue. By its first resolution, the General Assembly established the UN Atomic Energy Commission to deal with the problems raised by the discovery of atomic energy. And a landmark address by United States President Dwight D. Eisenhower in 1953, "Atoms for Peace", led to the establishment in 1957 of the International Atomic Energy Agency (IAEA).

The International Atomic Energy Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies. The IAEA's relationship with the United Nations is guided by an agreement signed in 1957. It stipulates that: "The Agency undertakes to conduct its activities in accordance with the Purposes and Principles of the United Nations Charter to promote peace and international co-operation, and in conformity with policies of the United Nations furthering the establishment of safeguarded worldwide disarmament and in conformity with any international agreements entered into pursuant to such policies."

UN Conference on Disarmament

The UN Conference on Disarmament, the sole multilateral negotiating forum on disarmament, produced the Comprehensive **Nuclear-Test-Ban Treaty**, which was adopted in 1996. The Office for Disarmament Affairs promotes nuclear disarmament and non-proliferation. The Committee on the Peaceful Uses of Outer Space produced the 1992 Principles on the use of nuclear power sources in outer space. The UN Scientific Committee on the Effects of Atomic Radiation reports on the levels and effects of exposure to ionizing radiation, providing the scientific basis for protection and safety standards worldwide.

Outer Space Treaty

The 1967 Outer Space Treaty bans the stationing of weapons of mass destruction (WMD) in outer space, prohibits military activities on celestial bodies, and details legally binding rules governing the peaceful exploration and use of space.

The treaty <u>entered into force</u> Oct. 10, 1967, and has 110 states-parties, with another 89 countries that have signed it but have not yet completed ratification.

The treaty's key arms control provisions are in Article IV. States-parties commit not to:

- Place in orbit around the Earth or other celestial bodies any nuclear weapons or objects carrying WMD.
- Install WMD on celestial bodies or station WMD in outer space in any other manner.
- Establish military bases or installations, test "any type of weapons," or conduct military exercises on the moon and other celestial bodies.

Other treaty provisions underscore that space is no single country's domain and that all countries have a right to explore it. These provisions state that:

- Space should be accessible to all countries and can be freely and scientifically investigated.
- Space and celestial bodies are exempt from national claims of ownership.
- Countries are to avoid contaminating and harming space or celestial bodies.
- Countries exploring space are responsible and liable for any damage their activities may cause.
- Space exploration is to be guided by "principles of cooperation and mutual assistance," such as obliging astronauts to provide aid to one another if needed.

Prevention of an arms race in outer space

Since the early 1980s, the Conference on Disarmament (CD) has considered further proposals under the agenda item "prevention of an arms race in outer space", including draft treaties aimed at, inter alia, preventing the placement of weapons in outer space and prohibiting the use of anti-satellite weapons.

In 2008, the Governments of China and the Russian Federation introduced the draft text of such a treaty to the CD. They presented a revised draft treaty in 2014.

The General Assembly has also been engaged in the matter of ensuring peace and security in outer space. In 2017, by resolution A/RES/72/250, the General Assembly decided to establish a Group of Governmental Experts to consider and make recommendations on substantial elements of an international legally binding instrument on the prevention of an arms race in outer space, including, inter alia, on the prevention of the placement of weapons in outer space.

While the Group held some of the most in-depth discussions on the matter in more than a decade, it was ultimately unable to reach consensus on a substantive report. The procedural report of the Group, which includes a report by the Chair of the Group on the work of its first session, can be found in document A/74/77.

Convention on the Physical Protection of Nuclear Material (Vienna, 1980)

The purpose of this treaty:

(a) "Nuclear material" means plutonium except that with isotopic concentration exceeding 80% in plutonium-238; uranium-233; uranium enriched in the isotopes 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore-residue; any material containing one or more of the foregoing;

(b) "Uranium enriched in the isotope 235 or 233" means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature;

(c) "International nuclear transport" means the carriage of a consignment of nuclear material by any means of transportation intended to go beyond the territory of the State where the shipment originates beginning with the departure from a facility of the shipper in that State and ending with the arrival at a facility of the receiver within the State of ultimate destination.

Article 2. 1. This Convention shall apply to nuclear material used for peaceful purposes while in international nuclear transport.

2. With the exception of articles 3 and 4 and paragraph 3 of article 5, this Convention shall also apply to nuclear material used for peaceful purposes while in domestic use, storage and transport.

3. Apart from the commitments expressly undertaken by States Parties in the articles covered by paragraph 2 with respect to nuclear material used for peaceful purposes while in domestic use, storage and transport, nothing in this Convention shall be interpreted as affecting the sovereign rights of a State regarding the domestic use, storage and transport of such nuclear material.

Article 3. Each State Party shall take appropriate steps within the framework of its national law and consistent with international law to ensure as far as practicable that, during international nuclear transport, nuclear material within its territory, or on board a ship or aircraft under its jurisdiction insofar as such ship or aircraft is engaged in the transport to or from that State, is protected at the levels.

<u>The International Convention for the Suppression of Acts of</u> <u>Nuclear Terrorism (2005)</u>

The purpose of this treaty:

1."Radioactive material" means nuclear material and other radioactive substances which contain nuclides which undergo spontaneous disintegration (a process accompanied by emission of one or more types of ionizing radiation, such as alpha-, beta-, neutron particles and gamma rays) and which may, owing to their radiological or fissile properties, cause death, serious bodily injury or substantial damage to property or to the environment.

2. "Nuclear material" means plutonium, except that with isotopic concentration exceeding 80 per cent in plutonium-238; uranium-233; uranium enriched in the isotope 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore residue; or any material containing one or more of the foregoing.

Fukushima Accident

Fukushima accident, also called **Fukushima nuclear accident** or **Fukushima Daiichi nuclear accident**, nuclear accident at the Tokyo Electric and Power Co. (TEPCO) Fukushima Daiichi ("Number One") plant in northern Japan, which became the second worst nuclear accident in the history of nuclear power generation. Tsunami waves generated by the main shock of the Japan earthquake on March 11, 2011, damaged the backup electrical generators of the plant. Although all three of the plant's six reactors that were operating were successfully shut down, the power loss caused cooling systems to fail in each of them within the first few days of the disaster. Rising residual heat within each reactor's core caused the fuel rods to overheat and partially melt down, leading at times to the release of radiation, and explosions resulting from the buildup of pressurized hydrogen gas occurred in the outer containment buildings enclosing reactors 1 and 3. Some two months later it was revealed that melted material had fallen to the bottom of the containment vessels in reactors 1 and 2 and bored sizable holes in the floor of each vessel, which partially exposed the nuclear material in the cores. A government-mandated no-fly zone around the plant was established, and a land area with a radius of 12.5 mi (20 km) around the plant was evacuated.

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QUESTIONS TO BE CONSIDERED:

- 1) How the United Nations space application program will assist developing countries through training and technical assistance so that they can employ modern technologies for their economic and social development?
- 2) With regard to the use of nuclear power sources in space how to update a set of principles to safeguard such nuclear power sources in Outer space?
- 3) What are the issues of conflict between government and the people living in regions of nuclear power plant?

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4) What are the international and regional framework of your countries regarding the safety of atomic energy production?

