



Study Guide

The General Assembly

The General Assembly

Tackling The Issue Of Space Debris

A Study Guide Anthologized in Their Infallible and Inexhaustible Duty
for ŽilinaMUN 2020 and Their Delegates By

The Rt Hon Gentleman Filip Lepieš

This Study Guide has been drafted specifically for the Žilina Model United Nations 2019 and may contain personal opinions of its author, who is the President of the General Assembly.

Please acknowledge this fact and act according to your country's policy.

*This document shall not be reproduced without the consent of its author.
Copyright © Žilina Model United Nations 2020. All Rights Reserved.*

Table of Contents

1. A Letter from the President of the General Assembly	5
2. Introduction to the UN General Assembly	6
2.1 Overview	6
2.2 Powers and Matters of Concern	7
2.3 Further Reading	8
3. Glossary - Useful Terminology, Phrases and More	9
3.1 UN and General Terminology	9
3.2 Terminology Relating to Tackling The Issue Of Space Debris and Space Law	10
4. Tackling The Issue Of Space Debris	11
4.1 Introduction and Overview	11
4.2 Space Law	13
4.2.1 The Five UN Treaties on Outer Space	13
4.2.1.1 The Outer Space Treaty	14
4.2.1.2 The Liability Convention	14
4.2.1.3 The Rescue Agreement	14
4.2.1.4 The Registration Convention	14
4.2.1.5 The Moon Agreement	15
4.2.2 The Five UN Declarations and Legal Principles on Outer Space	15
4.2.3 National Space Law	15
4.3 Questions to Consider	16
4.4 Further Reading	17
5. Closing Remarks	18

1. A Letter from the President of the General Assembly

Distinguished Delegates,

It is my great pleasure to welcome you to the principle body of the UN, General Assembly. As you all know, apart from the topic you are to be discussing throughout the sessions in your committees, most of us will also meet together in the GA chamber to jointly address a topic requiring worldwide attention.

We, the peoples of the United Nations are being daily confronted by various acute challenges. From the devastating consequences of the Climate Crisis, through numerous armed conflicts happening at this very moment to the global threat of terrorism, we all have too much to worry about. That being said, there were many topics to choose from for this year's Žilina MUN GA. After a thorough examination, we managed to find a topic, which might at first look not present itself as a one of the utmost importance, nevertheless with its hidden and quiet development matches the criteria of a possible catastrophe for mankind.

The topics you will be debating, and the countries you will represent will guide your hand in the debate, providing you with an argumentative position and framework, from which you may reach out and grow. Although I hope that you will find these to your satisfaction, and use them to elevate the debate as much as possible, I am wishing to witness also your personal input. Dare to think outside the box, be brave when drafting possible solutions and find the courage to not focus just on today but also tomorrow.

As in the UN GA, this is the place for all countries to let your voice be heard. All countries have the same chance to influence the flow of the resolution. This Study Guide will provide you with the basic, necessary run-down of the committee and the topic. It is a good start, but to truly understand the issues, you will need to go forth on your own and to do your own research. I sincerely hope that you find the topic and debate engaging and gripping and that this experience will provide you with an extra-platform for self-realization and improvement.

I wish you the very best in your research, as well as in the committee work, and I look forward to meeting you in the lovely city of Žilina.

Best Regards,



2. Introduction to the UN General Assembly

2.1 Overview

Established in 1945 under the Charter of the United Nations, the General Assembly occupies a central position as the chief deliberative, policymaking and representative organ of the United Nations. Comprising all 193 Members of the United Nations, it provides a unique forum for multilateral discussion of the full spectrum of international issues covered by the Charter. It also plays a significant role in the process of standard-setting and the codification of international law.



Diagram: Regional allocation of seats in the General Assembly Hall

Member states of the GA elect a President at the latest 3 months before the start of each session, and the Presidency rotates between the regional groups, in order to ensure equal representation.

A new President is elected at the beginning of each session, and the Assembly then proceeds to set its own agenda and deliberate on the various topics under its purview.

Because of their powerful stature globally, some of the largest, most powerful countries have never held the presidency, such as the People's Republic of China, France, Japan, Russia, the United Kingdom, and the United States. In particular, it is customary that no permanent member of the United Nations Security Council ever serves as UNGA president.

The Assembly meets from September to December each year, and thereafter from January to August, as required, including to take up outstanding reports from the Fourth and Fifth Committees. Also during the resumed part of the session, the Assembly considers current issues of critical importance to the international community.

Its composition, functions, powers, voting, and procedures are set out in Chapter IV of the United Nations Charter. It can also reconvene for special and emergency special sessions.



Image: United Nations General Assembly Hall in UN HQ, New York

2.2 Powers and Matters of Concern

All GAs powers and responsibilities are to be found primarily in the UN Charter, however, some of them are also specified and listed on the official webpage of the GA. Furthermore, there are various subsidiary, or in another way to the GA connected bodies, organisations and institutions in the UN.

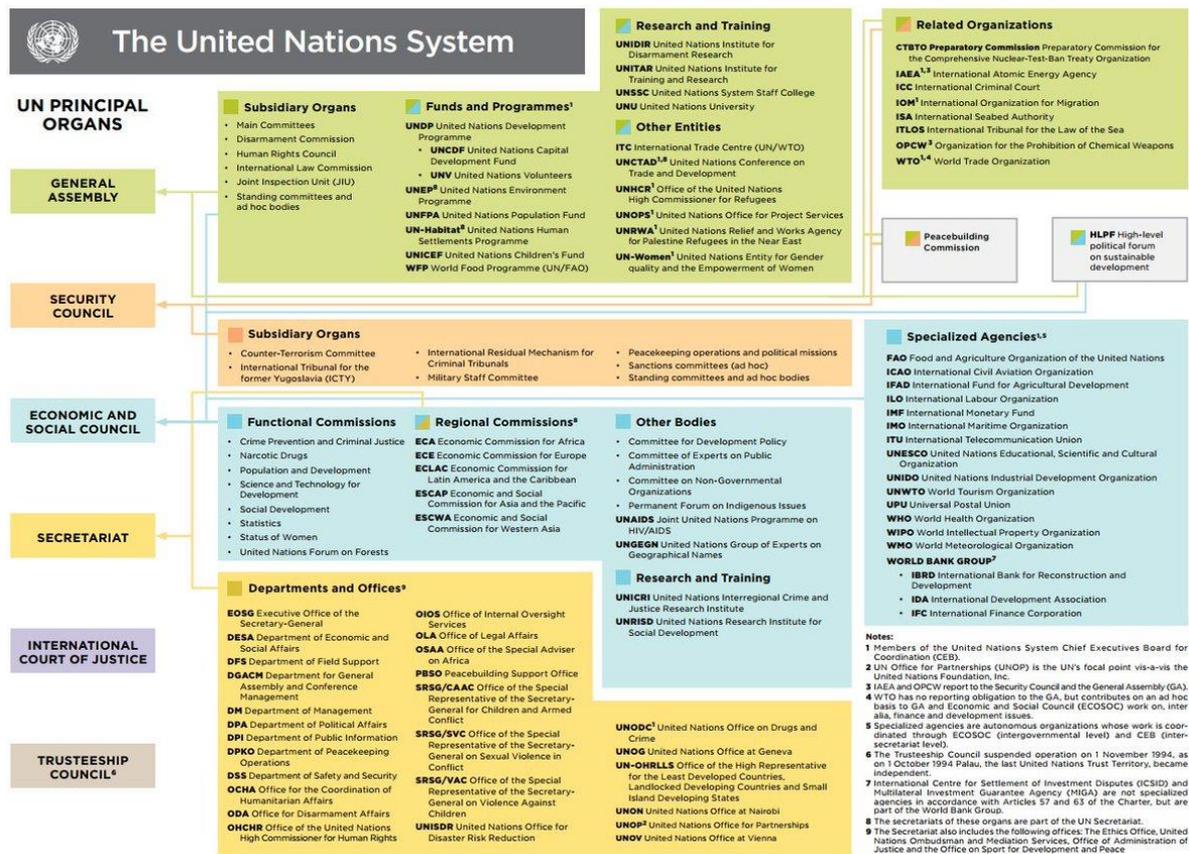


Figure: Organogram of the various bodies and institutions and their connections.

2.3 Further Reading

UN Charter - <https://treaties.un.org/doc/publication/ctc/uncharter.pdf>

The General Assembly - <https://www.un.org/en/ga/about/background.shtml>

3. Glossary - Useful Terminology, Phrases and More

The provided terminology concerns not only the immediately following introduction to the United Nations General Assembly and its duties but also the topics and their introductory texts. Please, see this segment as a whole, as all its parts are connected and are to be perceived as such.

3.1 UN and General Terminology

Sustainable Development Goals (SDGs) - UN development goals, currently set under a 2030 Agenda.

Charter of the United Nations - the founding document of the UN, which outlines its powers, as well as its individual organs and their functions. Chapter IV deals with the GA, its structure and powers.

UNOOSA - or The United Nations Office for Outer Space Affairs, is the United Nations office responsible for promoting international cooperation in the peaceful uses of outer space. UNOOSA serves as the secretariat for the General Assembly's only committee dealing exclusively with international cooperation in the peaceful uses of outer space: the COPUOS.

UNCOPUOS (COPUOS) - or The UN Committee on the Peaceful Uses of Outer Space, 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.

UN GA 4th Committee - (= the Special Political and Decolonization Committee) considers a broad range of issues covering a cluster of five decolonization-related agenda items, the effects of atomic radiation, questions relating to information, a comprehensive review of the question of peacekeeping operations as well as a review of special political missions, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), the Report of the Special Committee on Israeli Practices and International cooperation in the peaceful uses of outer space.

3.2 Terminology Relating to Tackling The Issue Of Space Debris and Space Law

Space Debris - is defined as all non-functional, human-made objects, including fragments and elements thereof, in Earth orbit or re-entering into Earth's atmosphere. Human-made space debris dominates over the natural meteoroid environment, except around millimetre sizes.

The Liability Convention - (= Convention on International Liability for Damage Caused by Space Objects) coming into force in 1972, it established liability rules for space. The Soviet Union was penalized under this convention when one of its nuclear-powered satellites crashed in Canada in 1978.

The Outer Space Treaty - (= Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies) the foundation of international space law, it forbids weapons of mass destruction in space and reserves the moon and other bodies for peaceful purposes. It opened for signature in January 1967 and entered into force on Oct. 10, 1967.

The Rescue Agreement - (= Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space) outlines the obligations for any state party that becomes aware that the personnel of a spacecraft are in danger. The Rescue Agreement went into force in December 1968.

The Registration Convention - (= Convention on Registration of Objects Launched into Outer Space) in 1976, it created a system to identify and register space objects.

The Moon Agreement - (= Agreement Governing the Activities of States on the Moon and Other Celestial Bodies) opened for signatures in 1979 but did not enter into force until 1984. The agreement reaffirmed and elaborated on the Outer Space Treaty as it relates to the moon and other celestial bodies, which should be used exclusively for peaceful purposes, their environments should not be disrupted, and the United Nations should be informed about any stations built on those bodies.

4. Tackling The Issue Of Space Debris

4.1 Introduction and Overview

Ever since the start of the space age on the 4th of October 1957 there has been more space debris in orbit than operational satellites. Space debris poses a problem for the near-Earth environment on a global scale, to which all spacefaring nations have contributed and for which only a globally supported solution can be the answer. The first awareness of the problem came about in the early 1960s, based on initial research activities undertaken in the United States of America, but it took some time to reach the international community. It eventually did by the mid-1970s via conferences organised by the International Astronautical Federation. The effect whereby the generation of space debris via collisions and explosions in orbit could lead to an exponential increase in the number of artificial objects in space, in a chain reaction which would render spaceflight too hazardous to conduct, was first postulated by Donald Kessler in 1978¹. The first dedicated conference on space debris was held in 1982, organised by the National Aeronautics and Space Administration (NASA), followed by the first workshop on the re-entry of space debris in 1983, organised by the European Space Agency (ESA), in response to the re-entries of Skylab and Cosmos-1402.

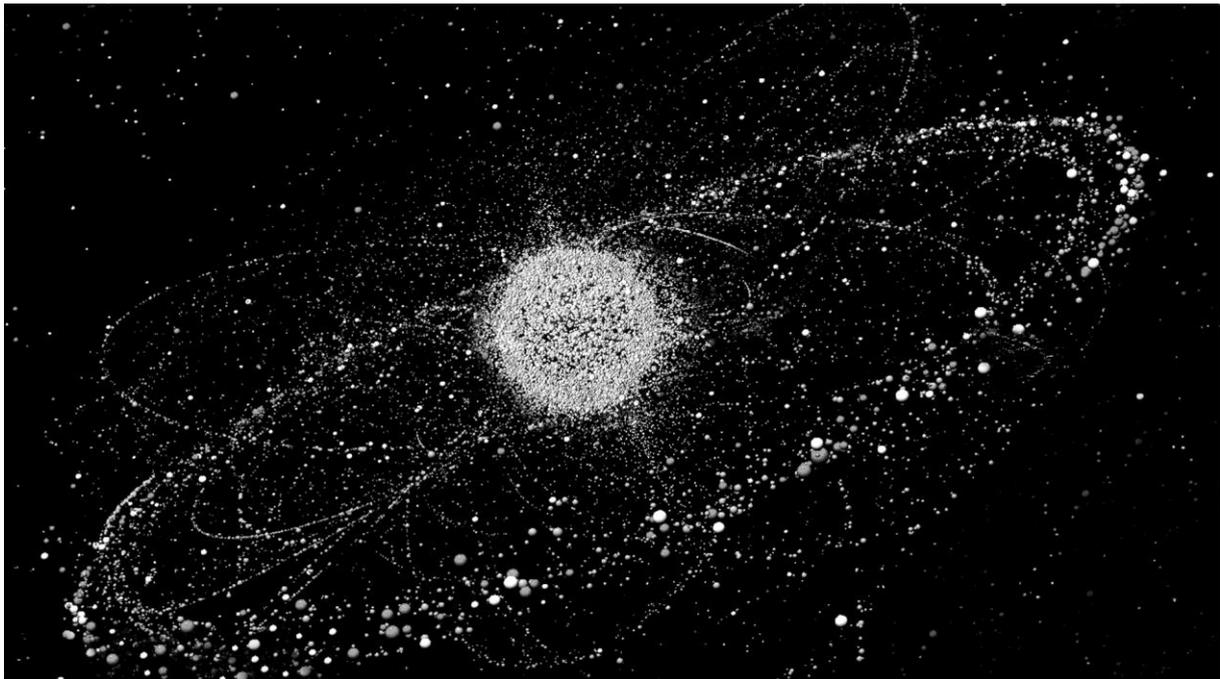


Image: ESA, "Debris around the World" illustration

¹ D. J. Kessler and B. G. Cour-Palais. Collision frequency of artificial satellites: The creation of a debris belt. *Journal of Geophysical Research*, page 2637–2646, 1978

The technical expertise on space debris, from re-entries to on-orbit break-up and hypervelocity impact testing, was gathered on agency and national level for much of the 1970s and 1980s. However, the global dimension of the issue called for bilateral knowledge transfer, which started on the initiative of NASA. These exchanges between experts resulted in multi-lateral meetings and lead to the creation of the Inter-Agency Space Debris Coordination Committee (IADC) in 1993, founded by ESA (Europe), NASA (USA), NASDA (now JAXA, Japan), and RSA (now Roscosmos, Russian Federation). Nine more agencies have joined the IADC since; ASI (Italy), CNES (France), CNSA (China), CSA (Canada), DLR (Germany), KARI (South Korea), ISRO (India), NSAU (Ukraine), and UKSA (United Kingdom). The IADC was founded as a forum for technical exchange and coordination on space debris matters, and can today be regarded as the leading international technical body in the field of space debris. Space debris has also been a recurring agenda item for the Scientific & Technical Subcommittee of the United Nations' Committee on the Peaceful Uses of Outer Space (UNCOPUOS) since 1994. The threat of space debris to the future of spaceflight combined with the nearly universal adoption of the Liability Convention² created the need for a set of internationally accepted space debris mitigation measures. A major step was taken in 2002 when the IADC published the IADC Space Debris Mitigation Guidelines³ and presented them to the UNCOUOS Scientific & Technical Subcommittee. This document has since served as baseline for non-binding policy documents, national legislation, and as the starting point for the derivation of technical standards. A consistent set of measures is paramount to tackle the global problem of space debris, but it is up to the individual nations, operators, and manufacturers to implement them, which can lead to variations on a case by case basis. As such, nations around the world have developed safety standards and specific guidelines building on the work of the IADC. However, standardisation of mitigation measures is important in order to achieve a common understanding of the required tasks leading to transparent and comparable processes. This is the task of normative international standardization bodies such as the International Standards Organisation (ISO) with ISO/WD 24113 Space Debris Mitigation⁴. In order to address the issues posed by space debris on spaceflight activities UNCOUOS has taken the initiative to create a set of internationally agreed guidelines for the long-term sustainability of outer space activities⁵. These guidelines contain recommendations on the policy and regulatory frameworks for space activities, the safety of space operations, rules of engagement for international cooperation, capacity-building and awareness, and scientific and technical research and development.

² United Nations. Convention on International Liability for Damage Caused by Space Objects, 1972

³ Inter-Agency Space Debris Coordination Committee. Space Debris Mitigation Guidelines, 2002

⁴ International Standards Organisation. Space Systems - Space Debris Mitigation, ISO TC 20/SC 14 N 24113, 2011

⁵ United Nations. Guidelines for the long-term sustainability of outer space activities (A/AC.105/C.1/L.366), 2019

4.2 Space Law

Space law can be described as the body of law governing space-related activities. Space law, much like general international law, comprises a variety of international agreements, treaties, conventions, and United Nations General Assembly resolutions as well as rules and regulations of international organizations.

The term "space law" is most often associated with the rules, principles and standards of international law appearing in the five international treaties and five sets of principles governing outer space which have been developed under the auspices of the United Nations.

4.2.1 The Five UN Treaties on Outer Space

These are: The "*Outer Space Treaty*"; The "*Rescue Agreement*"; The "*Liability Convention*"; The "*Registration Convention*"; The "*Moon Agreement*".

The U.N. International Treaties on Outer Space (1) General



The five international space law instruments are as follows:

	<u>Parties</u>	<u>Signatories*</u>
▪ Outer Space Treaty 1967 (into force 10 Oct 1967)	102	26
▪ Rescue of Astronauts Agreement 1968 (into force 3 Dec 1968)	92	24
▪ Liability Convention 1972 (into force 1 Sep 1972)	89	22
▪ Registration Convention 1975 (into force 15 Sep 1976)	60	2
▪ Moon Treaty 1979 (into force 11 July 1984)	15	4

*Note:

- (1) Signature by a State of a treaty without formal ratification nevertheless implies that the State accepts a duty not to behave in such a way as to defeat the purpose and main aims of the treaty.
- (2) Certain inter Governmental organisations have made Declarations relating to these instruments.
- (3) There are a number of other International Agreements and national legislation.

Table: London Institute of Space Policy and Law, "Sources of Space Law" ([link](#))

4.2.1.1 The Outer Space Treaty

Adopted by the General Assembly in its resolution 2222 (XXI), opened for signature on 27 January 1967, entered into force on 10 October 1967, this Treaty was largely based on the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, which had been adopted by the General Assembly in its resolution 1962 (XVIII) in 1963, but added a few new provisions.

4.2.1.2 The Liability Convention

Considered and negotiated by the Legal subcommittee from 1963 to 1972. Agreement was reached in the General Assembly in 1971 (resolution 2777 (XXVI)), and the Convention entered into force in September 1972. Elaborating on Article 7 of the Outer Space Treaty, the Liability Convention provides that a launching State shall be absolutely liable to pay compensation for damage caused by its space objects on the surface of the Earth or to aircraft, and liable for damage due to its faults in space. The Convention also provides for procedures for the settlement of claims for damages.

4.2.1.3 The Rescue Agreement

Adopted by the General Assembly in its resolution 2345 (XXII), opened for signature on 22 April 1968, entered into force on 3 December 1968, the Agreement, elaborating on elements of articles 5 and 8 of the Outer Space Treaty, provides that States shall take all possible steps to rescue and assist astronauts in distress and promptly return them to the launching State, and that States shall, upon request, provide assistance to launching States in recovering space objects that return to Earth outside the territory of the Launching State.

4.2.1.4 The Registration Convention

Adopted by the General Assembly in its resolution 3235 (XXIX), opened for signature on 14 January 1975, entered into force on 15 September 1976. Building upon the desire expressed by States in the Outer Space Treaty, the Rescue Agreement and the Liability Convention to make provision for a mechanism that provided States with a means to assist in the identification of space objects, the Registration Convention expanded the scope of the United Nations Register of Objects Launched into Outer Space that had been established by resolution 1721B (XVI) of December 1961 and addressed issues relating to States Parties responsibilities concerning their space objects. The Secretary-General was, once again, requested to maintain the Register and ensure full and open access to the information provided by States and international intergovernmental organizations.

4.2.1.5 The Moon Agreement

Considered and elaborated by the Legal Subcommittee from 1972 to 1979. The Agreement was adopted by the General Assembly in 1979 in resolution 34/68. It was not until June 1984, however, that the fifth country, Austria, ratified the Agreement, allowing it to enter into force in July 1984. The Agreement reaffirms and elaborates on many of the provisions of the Outer Space Treaty as applied to the Moon and other celestial bodies, providing that those bodies should be used exclusively for peaceful purposes, that their environments should not be disrupted, that the United Nations should be informed of the location and purpose of any station established on those bodies. In addition, the Agreement provides that the Moon and its natural resources are the common heritage of mankind and that an international regime should be established to govern the exploitation of such resources when such exploitation is about to become feasible.

4.2.2 The Five UN Declarations and Legal Principles on Outer Space

A number of fundamental principles guide the conduct of space activities, including the notion of space as the province of all humankind, the freedom of exploration and use of outer space by all states without discrimination, and the principle of non-appropriation of outer space.

These are: The "*Declaration of Legal Principles*"; The "*Broadcasting Principles*"; The "*Remote Sensing Principles*"; The "*Nuclear Power Sources Principles*"; The "*Benefits Declaration*".

All are to be found at Part II of [International Space Law: United Nations Instruments](#) (pages 43-67).

4.2.3 National Space Law

In addition to the implementation of international instruments of space law, states have developed national regulatory frameworks to governs the conduct of space-related activities.

States that have enacted national space legislations have taken a number of different approaches in dealing with national space activities. National space legislation can be contained in unified acts or a combination of national legal instruments. Furthermore, some States have adapted their national legal frameworks according to the specific needs and practical considerations of the range of space activities conducted and the level of involvement of non-governmental entities.

Issues which States may consider when enacting regulatory frameworks for national space activities range, for example, from the launch of objects into and their return from outer space, the operation of a launch or re-entry site and the operation and control of space objects in orbit to the design and manufacture of spacecraft, the application of space science and technology, and exploration activities and research.

National space-law making is also important in view of increasing participation of non-governmental entities in space activities, appropriate action at the national level is needed, in particular with respect to the authorization and supervision of space activities.

[Here](#) you can find a UNOOSA Collection of National Space Laws and Regulations.

4.3 Questions to Consider

There are two main categories of questions one shall consider when looking into this topic.

On hand we have the practical factors:

- To what extend should the international community respond?
- What is being done in this field to tackle the issue?
- Is this enough – are the current measures sufficient?
- What steps shall be taken to
 - lower the amount of debris on orbits?
 - prevent further pollution?

The other approach is legal:

- Is current legislature ready to face the possibility of consequences caused by the threat of space debris?
- Is there currently a functional judicial infrastructure capable of facing beforementioned issue?
- Which institutions are the ones, which should have the legally bounding power on extra-terrestrial matters? And if there are none, shall there be a new one established?
- What role should the UN play in this process?

4.4 Further Reading

UNOOSA Roles and Responsibilities -

<https://www.unoosa.org/oosa/en/aboutus/roles-responsibilities.html>

NASA videos on MMOD⁶ -

<https://www.youtube.com/watch?v=xJeOfxOqwQY&list=PLpEqMkxe7Xk-pmuHjdOfmKRCEpYHbLsnN&index=1>

2777 (XXVI). Convention on International Liability for Damage Caused by Space Objects (on 29 November 1971) -

<https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/liability-convention.html>

INTERNATIONAL SPACE LAW: UNITED NATIONS INSTRUMENTS (pdf file with all important documents) -

https://www.unoosa.org/res/oosadoc/data/documents/2017/stspace/stspace61rev_2_0_html/V1605998-ENGLISH.pdf

⁶ Micrometeoroids and Orbital Debris

5. Closing Remarks

With all this information provided in this Study Guide, you should be able to paint yourselves a general picture of the current state of the situation. It is however just an introduction, not the whole research. Thus, I do heavily encourage you to conduct individual research as well, especially regarding your respective countries.

While looking for materials online, I ask you to use critical thinking and media literacy. Verify all pieces of information you come upon and try to compare it to multiple other sources. The obvious difficulty of looking for original studies and analyzing their outcomes shall not serve as a discouraging element, but as a “space” for your own improvement and skill development.

Last but not least I would like to express my hope for a high level, fruitful debate, full of original ideas concluding with a revolutionary resolution which shall directly or indirectly affect all of our lives in a positive manner.