

Forum: GA1

Question of: Establishing international guidelines in order to ensure the peaceful use of outer space

Student officer: Jillian Elora Stein

Position: Chair of GA1

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I. Introduction

Space has always been looked up to as an infinite and unreachable frontier. Thought to hold the questions of life, mankind has always look towards it in search of answers to the world's most important questions. Mankind has always understood the power of outer space. From tracking tide patterns, mapping constellations, and planning harvests in accordance with the placement of the moon, it is clear that mankind has always used the patterns and regularity of outer space to better understand the placement of humans in the Universe. As we move forwards in the 21st century, the role of outer space is growing into a much more impactful component in human life. Massive leaps in human ingenuity have allowed us to enter the cosmos and begin to answer the questions that form a foundation of human life.

With this newfound power however, we have come across a new set of issues. International exploration of outer space brings with it the need for regulation in a vast and non-policable environment. As the international community moves forward with the development of space capabilities, there are three main aspects of space exploration to bear in mind: Economic, military, and environmental.

1. Economic: Outer space offers the opportunity to access the raw material of celestial bodies, as of now the most relevant being the moon. These celestial bodies carry vast resources, including minerals and natural gasses that are relatively more difficult to access on Earth.
2. Military: As the humanity's best vantage point, outer space poses a massive threat in terms of its use for military operations. If any one country gains large amounts of military power in the orbital sphere it could disrupt the balance of power on the Earth's surface.
3. Environmental: Space exploration is not an activity which is in anyway easy on the Earth's atmosphere. The combustion of fuels for take off, the rouge debris which lands on the earth's surface, and most importantly, the creation of space debris.

When exploring the issue at hand, bear in mind the three main aspects listed above as cornerstones for creating tangible and implementable solutions.

II. Definition of key terms

a. United Nations Office for Outer Space Affairs

The United Nations Office for Outer space is the UN body responsible for the establishment of legal and regulatory frameworks to govern space activities. The organ makes efforts to promote the peaceful use and exploration of outer space. Moreover, the UNOOSA works with developing countries to establish space programmes in national development programmes through the strengthening the capacity of developing nations to use space science technologies. The UNOOSA has, through its subsidiary body the Committee in the Peaceful Uses of Outer Space (COPUOS), worked to create a framework around universal space law.

b. International Telecommunications Union

The International Telecommunications Union is the specialised UN body responsible for any issues regarding “information and communication technologies.” Specifically the agency is responsible for the coordination of the use of radio spectrum communications devices. This is done largely through the management of low orbit satellites, and the provision of telecommunication infrastructure primarily to developing countries. This agency is relevant to the topic at hand as it tackles the issue of the economic and social development opportunities made possible by increased space capabilities. It however, also highlights the importance of developing international minimum standards to ensure that universal access to space infrastructure (telecommunication satellites is provided).

c. Space Debris

The term space debris refers two to primary types of debris found in the solar system as well as in Earth’s orbit. Prior to 1979, the term Space debris referred solely to the natural debris found in the solar system including asteroids, comets, and meteoroids. However, following the creation of the NASA Orbital Debris Program, the term refers additionally to the artificial (man-made) objects that exist in Earth’s orbit. Largely consisting of old satellites, spent rocket stages.

The existence of space debris raises two primary issues. Firstly, its increased presence in Earth’s orbit poses a massive threat to the structural integrity of spacecrafts and satellites. As most space debris present in Earth’s orbit is man-made it is far denser than that which is naturally occurring, as such its impact on space technology, specifically externally planted solar panels and telescopes is substantial.

The second threat posed by space debris is the overarching question that it poses: What is the environmental impact of space exploration. A key component in ensuring long-term space capabilities is the maintenance of its naturally occurring cycles.

d. International Space station

The international space station is the largest and longest operating habitable artificial satellite. The ISS was created for three main purposes, Scientific research, Exploration, and manufacturing of equipment. The ISS programme is a joint venture between five space agencies including Nasa (United States), Rosocomos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada)

Beyond its primary purposes, the International Space Station represents the vital spirit of co-operation necessary for present and future success in the exploration of outer space. In its core values it demonstrates the practical implementation of key treaties pertaining to Outer space such as those created by the COPUOS.

e. The Committee in the Peaceful Uses of Outer Space (COPUOS)

Established in 1958 as a permanent body of the United Nations, The Committee in the Peaceful Uses of Outer Space plays a key mediating role in the creation and enforcement of international Space law. The Committee was established to take on four main objectives:

- To ensure cooperation in research and information sharing in regards to outer space,
- To Ensure the enforcement of legal frameworks for outer space on a practical level through national policy,
- Managing subsidiary programmes such as the United Nations Platform for disaster Management and Emergency Response (UNSPIDER)
- Mediating international cooperation in terms of disaster prevention, the limitation of space debris, and the exploration of the use of space technology in the field of climate change.

f. Arms Race

The term Arms Race when put within the context of Outer space refers to the process by which global powers strive to attain hegemony over the orbital domain. This is done largely through emphasis on, militarization, research and development in regards to space technology, and increased physical presence. The issue of a Space Arms race is one which has been highly relevant at two key points in post WWII history, mainly during the cold war period and in a modern 21st century context. Between 1955 and 1975 the key players of the Soviet Union and the United States engaged in an international space race as a means to achieve dominance over space capabilities. A series of treaties were subsequently implemented by the UNOOSA to ensure the limitation of this arms race through mandating the peaceful use of outer space (Elaboration upon these treaties can be found under previous attempts to solve this issue). In the 21st century, the International arms race for dominance over space capabilities is dominated by three main actors, the United States, the Russian Federation, the People's republic of China. Despite the fact that each of the three parties listed have signed and ratified the key treaties crucial to ensuring the use of outer space for peaceful purposes, rampant distrust and a drive to gain the upperhand has transformed the pursuit of space capabilities into a zero sum game.

III. General overview

a. Previous attempts to solve this issue

i. The Outer Space Treaty (1967)

Agreed upon by the UN Legal committee in 1966 the Outer Space Treaty was created to provide a basis framework for international space law. The treaty was based largely off a previous document, the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space. The treaty was signed by the three relevant parties at the time, the United States, the Russian Federation, and the United Kingdom.

ii. The Rescue Agreement (1968)

The Agreement on the Rescue of Astronauts, the return of Astronauts and the Return of Objects Launched into Outer Space Treaty was considered and negotiated by the UN legal subcommittee and finally entered into force in December of 1968. The treaty expanded upon article 5 and 8 of the Outer space treaty and provided an essential component of procedural clarification. The treaty outlined the importance of stated to take all necessary steps to ensure the rescue and assistance of astronauts in distress.

iii. The Liability Agreement (1972)

The Liability agreement entered into force in September of 1972 after having been agreed upon by the member states in the General Assembly in 1971. The treaty expanded upon article 7 of the Outer Space Treaty. The document codified the liability of the state for any damages occurred by the Earth's surface or aircraft. The treaty states that that all states are to pay compensation for any damage caused by their space objects onto any external party. The convention outlines the procedure through which relevant claims can be settled.

iv. The Registration Convention (1976)

The Convention on Registration of Objects launched into Outer space was Put into place in September of 1976 after being adopted by the General Assembly in 1974. The treaty expanded upon the sentiment expressed in the Outer Space Treat, the Rescue agreement, and the Liability Convention regarding space objects. Specifically, the treaty was established to provide a mechanism to facilitate state's assistance in the identification of space objects. Furthermore, the treaty addressed the issue of state responsibility in regard to the maintenance of space objects as a means of limiting space debris. As a means to ensure transparency, the secretary general requested the registration and open access to the information provided by states and international intergovernmental organisations on this matter.

v. The Moon Agreement (1984)

Agreement Governing the Activities of States on the Moon and Other Celestial Bodies entered force in July of 1984 after having been adopted by the General Assembly in 1979. The Treaty focused on three main ideas: the importance of the peaceful use of Outer Space, avoidance of the disruption of the environment of celestial bodies, and the importance of the UN in the management of space activities. The treaty suggests the creation of a regulatory and enforcement framework to prevent the exploitation of the Moon's resources.

b. Current attempts to solve this issue

i. Space Security Conference 2018: Space Security

in 2018 member states of the Outer Space Security Conference gathered in the Palais des Nations in Geneva. Organised and facilitated by the United Nations Institute for Disarmament Research, (UNDIR) the conference was held to assess the previous efforts put towards ensuring the peaceful use of outer space, as well as examining how these efforts can be reinforced to better address the issue. Most specifically the conference aimed to strike a balance between applying restrictions to proliferation, while maintaining a fast rate of technological advancement. These efforts were made in light of the growing presence of non-state space programmes (ex. Space X) and the startling rate at which governments are investing to expand their space capabilities.

ii. Group of Governmental Experts

The Group of Governmental experts was founded by the United Nations Office of Disarmament affairs (UNODA) to make recommendations on key components of a legally binding instrument to prevent a Space Arms race with an emphasis on preventing weapons from being placed in outer space. The group of Governmental Experts is composed of members from Algeria, Argentina, Australia, Belarus, Brazil, Canada, Chile, China, Egypt, France, Germany, India, Islamic Republic of Iran, Italy, Japan, Kazakhstan, Malaysia, Nigeria, Pakistan, Republic of Korea, Romania, Russian Federation, South Africa, United Kingdom, and United States.

c. Major parties and their views

i. China

China has been very clear in their expression of their stance on the militarization of outer space. The states has made it very clear that they stand firmly against its usage for this purpose and have demonstrated this aptly through working closely with th UN in developing solutions therefore. “UNOOSA and China also called for increased international cooperation for the benefit of all countries in space research, applications, operations and exploration.”

Despite China’s public stance against the militarisation of space however, they continue to develop their space capabilities for this very purpose. Most notably, the development of anti-satellite technology, and satellite jammers. While this activity can not be explicitly tied to the militarization of space, it absolutely contributes to the growing international distrust surround the use of outer space. As countries, such as China continue to covertly develop such technologies, the ability to implement transparency measures and come to a comprehensive agreement will become increasingly challenging.

ii. European Union

The European Union stands firmly behind maintaining outer space as a non militarised “common good.” At the United Nations 1st committee representative of the European Union called upon the importance of transparency and dialogue as well as the creation of a comprehensive and binding legal instrument to limit military activities in space. Demonstrating their commitment to the preservation of outer space, the EU has proposed the international Space Code of Conduct. This document outlines fifteen key components of ensuring fair usage of Space as an international resource. Home to the second most funded space programme in the world, European Space Agency (ESA), the European Union is a key player in encouraging global space disarmament and their continued participation in talks will be crucial to the pursuit of a solution.

iii. The Republic of India

The republic of india stands by the international agreements regarding the peaceful use of outer space. Indian space capabilities, by and large, focus far more heavily on

the economic benefits that can be reaped rather than militarization. India recently entered into cooperative agreements with 33 countries, most notably: The US, the UK, Germany, France, Russia. It is however important to note that China is not participating in this agreement. The issues over which India seeks cooperation include: "Remote Sensing of Earth, Satellite Communication, Launch Services, Telemetry and Tracking Support, Space Exploration, Space Law and Capacity Building." While India is taking part in efforts to ensure the peaceful use of outer space, they are also expanding their space capabilities at an alarming rate. This rapid expansion could be perceived as participation in the global space race, although the previous adherence to UNOOSA agreements suggests otherwise. Their actions moving into the future are worth being observed.

iv. United Kingdom

The United Kingdom has expressed their interest in the formation of a legally binding framework to ensure the peaceful use of outer space and has emphasised the importance of protecting humanity's shared extraterrestrial resources. The UK has however, suggested that while they would be willing to enter into a comprehensive and binding treaty, as negotiations now stand they do not feel as though the issue is being addressed with suitable specificity by the UN and other member states.

v. The United States of America

The United states has reaffirmed their commitment to the treaties put into force by the UNOOSA. The USA has stated that cooperation in terms of space capabilities and increased transparency and confidence building measures are vital in ensuring international progression. With that being said, their commitment to such agreements must be questioned as they continue to develop technologies for the purpose of militarisation. A key example being that of Space force. Space force is the space warfare service branch proposed by the Trump Administration. The Space force was created for three main purposes: "Protecting the United States' interests in space and the peaceful use of space for all responsible, consistent with all applicable law, to

include international law; Ensuring the unfettered use of space for the United States' national security and economic interests, as well of that for all U.S. allies; To deter aggression against the United States, its allies, and interests from hostile acts in and from space." While all state should stand by ensuring that their space capabilities are protected, the Space force is a direct violation of agreements safeguarding the peaceful uses of outer space. Furthermore, the continued pursuit of militarised space capabilities threatens the future of international cooperation as could lead to continuance of the international space arms race.

vi. The Russian Federation

The Russian Federation has taken a very firm and public stance on what is needed to ensure the peaceful use of outer space. Their stance is that the development of a powerful legally binding instrument with guarantees is needed in order to ensure enforceability and cooperation. The Russian Federation has been vocal in the development of such a treaty and has worked in conjunction with other UN member states, most notably China, in the Conference on Disarmament since 2014 to achieve this goal.

IV. Questions to consider

- How can your countries manage the issue of space pollution and the creation of space debris while, continuing to increase space capabilities?
- What is your country's primary purpose for expanding their space capabilities?
Economic? Military?
- Is your country willing to enter into a binding and enforceable treaty which limits their ability to act uninhibited?
- How can the international system ensure that the area around the Earth's Orbit remains free of sovereign jurisdiction of any nation?

- Should More Economically Developed Countries (MEDCs) aid Less Economically Developed Countries (LEDCs) in the research and development of space Capabilities?

V. Relevant Documents

A/RES/73/91 on international cooperation in the peaceful uses of outer space. (December 2018)

(http://www.unoosa.org/oosa/oosadoc/data/resolutions/2018/general_assembly_73rd_session/ares7391.html)

A/RES/70/53 on transparency and confidence-building measures in outer space activities

(http://www.unoosa.org/oosa/oosadoc/data/resolutions/2015/general_assembly_70th_session/ares7053.html)

A/RES/68/74 recommendations on national legislation relevant to the peaceful exploration and use of outer space (2013)

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VI. Conclusion

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