

Forum: General Assembly 4 (SPECPOL)

Issue: The question of peaceful uses of outer space

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Introduction

As scientific research and technology is advancing year by year, humans are beginning to develop a stronger interest in heading out towards the stars, to a place still quite unknown by mankind, a place known as Outer Space. To prevent our world's major powers from colonizing space, or using space to their own advantage, the global community needs to collaborate with one another to establish a set of regulations, not only to establish peace among countries, but to ensure that all countries can enjoy the benefits of this extraterrestrial world. In this agenda, peace will be referred to as “untroubled by conflict, agitation or commotion”. Due to the ever expanding nature of space exploration, it is of essence that nations maintain a peaceful relationship with each other when it comes to all matters related to outer space. Thus, this topic addresses the need for exploring space for the benefit of humanity without the need to use weaponry and the urge to militarize space.

There are multiple benefits to space exploration. For one instance, exploring space could potentially lead to humans discovering another more advanced civilization, thus further advancing the current technology on earth. Additionally, Space exploration can potentially be the solution to climate change. For instance, space mirrors are a type of climate engineering device, and are initially a large mirror placed in outer space which can control the amount of sunlight hitting the earth. By being able to control the amount of sunlight reaching the earth, it will be able to decrease the speed of global warming and prevent the ice caps in the arctic from melting. This is only one of the many potentials outer space can bring. Seeing that Outer Space can be so beneficial to our future, it is essential that no nation can abuse the use of space or colonize entities in space, as it may prevent solutions to detrimental issues on earth from happening on a global scale.

There are various reasons why countries are interested in space exploration. While some countries see space exploration as a method to increase their power and prosperity on earth, other nations and private sectors are looking towards creating a multiplanetary civilization beyond Earth for the

good of humanity. Whether these intentions are good or bad, it is crucial for the UN to establish peace in space and peace amongst nations in order to prevent conflicts and wars from emerging.

Not only will this agenda discuss the peaceful uses of outer space but will also further discuss the future of space exploration and the role nations will have in the space industry. Thus, delegates should strive to incorporate all the aspects above when drafting a resolution for this topic.

Definition of Key Terms

Outer Space

Outer space is defined as the space immediately outside the earth's atmosphere. Over the years, there have been many rules set in order to establish peaceful use of outer space. Firstly, the UN states that space should be open to exploration, thus no nation can claim sovereignty over any part of space, including the moon, Mars, and other celestial bodies. Additionally, in order to promote civil space exploration and peaceful uses of space, the UN general assembly created the Committee of the Peaceful Uses of Outer Space (COPUOS) which ensures that all nations are prohibited from placing any weapons in space to prevent countries from using space for military and war objectives.

Soft Kill Weapons

Soft Kill Weapons are weapons which can disable a satellite, thus removing all of its functions. If nations were to use Soft Kill weapons against other nations, this could definitely disrupt peace between countries and can slow down the progress of space exploration. Additionally, the use of soft kill weapons to disable satellites can also increase the amount of orbital debris already existing in outer space and can also cause detrimental effects if the debris were to fall to earth.

Space Law

The creation of Space Law dates back to 1967, and is essentially a set of rules consisting of treaties, international agreements, conventions, resolutions from the General Assembly, and more. The Space Law is extremely crucial in ensuring the peaceful use of outer space as it addresses the rules that all nations should follow and consequences if those rules are not followed. According to the United Nations Office for Outer Space Affairs, the Space Law includes the following but not limited to, the safety and protection of astronauts, use of technologies, settling disputes, and more. Due to the UN establishing Outer Space as non-sovereign, it is of essential importance that all nations abide by the Space Law, or else Outer Space will no longer be safe.

Arms Race

In general, an Arms Race is a competition between at least two countries, in which they compete for the advancement in weaponry. However, in the context of Outer Space, an Arms Race refers to the competition between nations regarding the advancements of space technology. The most important Arms Race of all time is the Space Race between the US and the USSR (more details regarding this event will be in the background information section of this guide).

Celestial Bodies

Celestial Bodies are entities in space, including stars, planets, exoplanets, exomoons, galaxies and more. According to the Outer Space Treaty created by the UN, no nation can claim sovereignty over any celestial bodies, thus making outer space equal (in theory) for all nations to explore. This treaty is extremely important as no nation will be able to claim any planets that they discover and if a nation does discover a potentially habitable exoplanet in the future, such as Kepler-186f, this treaty will prevent the nation from colonizing the exoplanet.

Space Tourism

Space Tourism is travelling to space for recreational purposes. In simple terms, it is like going to a different country for vacation, except going to space instead. Although this idea is fairly new and has only been conducted by the Russian Space Agency, this could potentially be our future. Space Tourism has multiple benefits but also some disadvantages. For example, terrorists could potentially use Space Tourism as an excuse to perform acts which threaten the safety of all. On the other hand, space tourism can increase the number of astronauts and people interested in space exploration which could overall be beneficial to research and development.

Military Satellite

Military Satellites are satellites used for military purposes such as military intelligence, communication, navigation, and spying. Despite the UN's attempts to establish peaceful uses in Outer Space, there are currently still around 320 military or dual satellites in space, with over half owned by the United States. Other military satellites belong to the Russian Federation, China and India. With militarization already existing in space, more efforts are needed to be taken to enhance the safety of Outer Space and the surveillance and approval of these satellites before being launched into space.

Space Technology

Space Technology is the application of science and engineering to space exploration. Although there are some technologies which can disrupt the peaceful use of Outer Space, such as military satellites, there are also technologies such as dyson spheres or space mirrors, which can potentially

help reverse climate change. Ultimately, space technology is whatever humans make out of it, which is why we should strive our best to only implement space technology with good intentions.

United Nations Office for Outer Space Affairs (UNOOSA)

The United Nations Office for Outer Space Affairs (UNOOSA) is responsible for promoting peaceful use of outer space. The UNOOSA plans on using outer space to benefit the global community without bringing harm. For example, UNOOSA would like to use outer space as a resource to forecast natural disasters, tracking rising sea levels, and more.

Militarization

Militarization is the act of war, conflict, destruction and neutralization. In the context of Outer Space, militarization is placing weapons in outer space, or using outer space to harm other nations. As space exploration and advanced technology increases, the potential for militarization increases, which is why nations must abide by the Space Laws and not use space for acts of war. As more satellites are launched into space, there can be a potential threat of militarization, as nations could use such satellites to spy on other nations. Which is why creating a stronger security system in outer space is crucial for decreasing militarization of Outer Space.

Background Information

Major Achievements and Events of Space Exploration

Throughout history, there have been many notable achievements when it comes to exploring space. Below, there is a list of the most important achievements and events of space history. Although not all events and achievements are good in nature, these events are essential to the development of technology and the development of rules and laws needed to ensure righteousness and peacefulness in outer space.

Space Race: United States (US) VS. Soviet Union (USSR)

The Space Race between the United States and the Soviet Union began in 1957 when the Soviet Union launched the Sputnik 1 satellite to space. This action by the Soviets sparked a competition between the US and the Soviets to see who is the most powerful and advanced nation in terms of space exploration. While some claimed that the space race ended when the US sent the first human to the moon, some believe that the space race is still continuing in the modern day, although less broadcasted. The space race had a tremendous impact on how other nations perceived space. From space used to being a quite unknown and distant topic to nations, now nations are becoming more and more knowledgeable on extraterrestrial space.

First human to walk on the Moon: Neil Armstrong (USA)

Neil Armstrong was an American astronaut from NASA and was the first human to land on the moon. This event gave the US significant leverage over the USSR as they were able to accomplish this mission before them. Even today, the US and Russia are to see who can land the first human on Mars. With this never ending rivalry between nations to see who can accomplish the next major breakthrough in space exploration, it is essential that the UN ensures that the competition between nations does not disrupt peace in space.



Caption #1: Apollo 11 Team: Includes Neil Armstrong: The first human and first American to step on the moon

Ongoing Disputes & Modern Space Race

Although the Space Race between the US and the Soviet Union officially ended in 1969, there is a whole new space race in this era. This time, the space race isn't only between the US and Russia, but multiple other countries as well, such as Japan, Russia and Europe.

China's involvement in Space

China has been improving when it comes to cooperation with other countries. Although China has signed multiple treaties in the past agreeing to peaceful uses of outer space, they have never expanded to collaborate with less known countries in the space industry. In 2020, China and Serbia signed a joint cooperation agreement to improve cooperation in developing space technology and multiple other systems.

Major Countries and Organizations Involved

The People's Republic of China

China has always strived to become one of the world's most powerful nations in terms of space exploration. Previously, China was the third country to launch a human into outer space, behind Russia and the United States. China also signed a treaty alongside Russia during the United Nations

Conference on Disarmament, stating that they will not be utilizing weapons of mass destruction in outer space. Recently, China has begun its first attempt at landing on Mars, so far the trip is going smoothly. However, there have been allegations claiming that China has been arming their satellites with weapons and are using soft kill weapons, but China has denied all allegations thus far.

United States of America

The United States of America has been an active participant in space exploration ever since the beginning. From the space race during the cold war, to sending the first human on the moon, the US has contributed to many major milestones in space exploration history. The US was also one of the first nations to sign the Outer Space Treaty. However, during the United Nations Conference on Disarmament, the US refused to abide by a treaty which bans space weapons, despite China and Russia agreeing to the treaty. Although the Outer Space Treaty bans weapons of mass destruction from orbit, it does not ban other weapons from being in orbit. Additionally, the treaty also does not prohibit anti-satellite and anti-missile weapons either. Thus, militarization of space could still be a reality in the future unless more specific regulations are set in place.

USSR / Russian Federation

The USSR, alongside the US has also been an active participant of space exploration from the very start. The USSR sparked the space race and increased the interest of space exploration drastically when they launched the Sputnik 1 satellite in 1957. The launch of Sputnik 1 inflicted a competitive response from the US, resulting in them launching their own satellite to space. Although the space race officially ended 1969, when the US asserted dominance and landed the first man on the moon, the space race never truly ended as there is still a hidden rivalry between Russia and the US. Currently, Russia has their own space agency, known as the Rocosmos and also takes part in the international space agency. Over the years, Russia has accomplished major space and technological advancements, as well as signing multiple treaties to ensure peace in outer space. However, many treaties contain loopholes to which nations can still launch particular weapons into space, thus it is of essence for these treaties to be clearly defined.

Japan

Japan is one of the most technologically advanced nations in the world. However, they do not flaunt their achievements as much as the US and Russia and they tend to keep their achievements to themselves. Nonetheless, Japan was able to harness remarkable achievements over the years and are beginning to become a more active participant in space exploration. Japan was also one of the first nations to sign the Outer Space Treaty. Recently, Japan has launched a military satellite to communicate

with their army and defense system. This act is quite controversial as their intentions of this act may violate some of the treaties they agreed to.

Democratic People's Republic of Korea

The Democratic People's Republic of Korea (North Korea) did not sign or ratify the Outer Space Treaty. Thus, implying that they do not abide or support the contents of the treaty. North Korea is known to have a surplus amount of nuclear weapons and they have also launched satellites and weapons into space in the past. Although not much is known about the intentions North Korea has, their nuclear capabilities and unwillingness to abide to peace in outer space, as stated in the Outer Space Treaty, could imply that they may be planning on using outer space as a military mechanism in the future. However, due to the lack of information on their intentions, North Korea currently has a neutral to negative stance in terms of establishing peace in Outer Space.

NASA

NASA is a space program created by the US, but is not dependent on the US federal government. NASA has many joint collaborations with other nations, including the US, Russia, Canada, Japan, and European countries. The actions of NASA in the past have contributed to establishing peace in outer space. For instance, NASA launches satellites to collect data on climate change and are currently developing technology to destroy any unwanted objects from falling into the atmosphere. If NASA were to collaborate with more nations across the world, their impact would benefit more nations and enhance the development of space exploration to a whole new level.

MarsOne

Mars One is a private Dutch non-profit organization who plans on establishing the first human colony on Mars by 2025. The mission consists of sending four astronauts to Mars, without the option of returning to Earth, so that they can live, explore, and create a second home for humanity. As good as Mars One sounds, according to the Massachusetts Institute of Technology (MIT), humans do not have the technology to make this mission feasible at the moment. Additionally, the company that finances Mars One has been liquidated, causing Mars One to go bankrupt, thus creating a setback in their progress.

UN-SPIDER

The UN-SPIDER was created in 2006 under the UNOOSA. The primary goal of the UN-SPIDER is to develop solutions and technologies, such as satellite based telecommunication, which can help developing countries manage and reduce disasters, including natural disasters. The UN-SPIDER is very helpful in providing aid and support to any nation in need, thus many nations, such as China and Germany have expressed their appreciation and renewed their contract with the UN-SPIDER.

International Space Station (ISS)

The international space station is a research laboratory in space and partners with multiple space agencies across the world. The partnerships include nations such as the US, Russia, Europe, Japan, and Canada. Although the ISS used to be used for government purposes, it is now shared with many nations and helps improve collaboration amongst nations. The ISS also helps mankind conduct more thorough research as it serves as a temporary home and research laboratory for astronauts and scientists to stay in outer space for long durations.

SpaceX

Space Exploration Technologies Corporations or otherwise SpaceX is a private company founded by Elon Musk, who is also the founder of Tesla. The primary goal of SpaceX is to contribute and improve on current space technology. Currently, SpaceX has performed over 100 space missions and are also collaborating with NASA to create space capsules which transport astronauts to the international space station. SpaceX is currently also striving to land on mars in the near future and have been working endlessly to create newer and faster spacecrafts which can make the trip to mars possible.

Virgin Galactic

Virgin Galactic is the “world's first commercial spaceline and aerospace company” . The primary purpose of virgin galactic is to create a space craft which can expand the number of people going to space and expand space knowledge around the world. In a test flight in 2014, there was a fatal accident, killing the co-pilot and seriously injuring the pilot. Thus, safety while exploring outer space is an essential factor to consider.

Timeline of Events

Date	Description of event
October 4th, 1957	USSR launches Sputnik
December 13th, 1958	Creation of the United Nations Office for Outer Space (UNOOSA)
December 12th, 1959	Creation of the Committee on the Peaceful Uses of Outer Space (COPUOS)
January 26th, 1967	Establishment of the Outer Space Treaty
July 17th, 1975	Apollo-Soyuz Joint Program Docking
November 20th, 1998	Creation of the International Space Station
May 6th, 2002	Creation of SpaceX
2006	Establishment of UN-SPIDER

September 25th,
2018

Space2030: Space as a Driver for Peace

Relevant UN Resolutions and Treaties

- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies **(A/RES/2222/21)**
- Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space **(A/RES/2345/22)**
- Convention on the International Liability for Damage Caused by Space Objects **(A/RES/2777/24)**
- Convention on the Registration of Objects Launched into Outer Space **(A/RES/3235/29)**
- Agreement Governing the Activities of States on the Moon and Other Celestial Bodies **(A/RES/34/68)**
- International Cooperation in the Peaceful Uses of Outer Space **(A/RES/55/112)**
- Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects **(A/RES/62/101)**

Possible Solutions

Creation of Multinational Space Organizations. While some nations are more financially advanced than others, people from all different nationalities should have the choice to explore outer space. By creating a multinational space organization, an organization which is not dedicated to one specific country and employs people from all different nationalities, this can potentially decrease the tension and competition between nations and potentially allow competitive nations to see that exploring space should be a mission between mankind and not a mission for one country to tackle, thus encouraging them to collaborate with other nations. Multinational cooperation will not only dissolve potential disputes between nations, but will also increase the amount of knowledge on space exploration and increase the speed of new ideas and discoveries. So far, an organization who has included major collaboration from multiple countries is the international space station program (ISS). The ISS is an organization consisting of the US, Russian Federation, Canada, Japan, and eleven member states of the European Space Agency. Although this is already a promising start, the creation of multinational space organizations should be implemented to a larger scale, meaning the incorporation of more nations, including LEDC's. Delegates should strive to research terms and conditions that nations may agree on and find out the extent to which a nation is willing to collaborate with other nations by looking at past treaties and agreements that nations have agreed upon in the past. Delegates can also look at the past and current actions of their nation to see whether they align with international cooperation or self benefit.

Improving Satellite Transparency between Nations and Civilians. Currently, information regarding the 6000 satellites circling our planet are extremely scarce. In addition, nearly 40% of the 6000

satellites are orbital debris and have stopped functioning long ago. With so many satellites and so little information about which satellites work and which don't, it makes finding satellites with weapons a difficult and tedious task to do. Thus, improving transparency about the satellites can also help make cleaning orbital debris an easier task to complete. Not only is improving satellite transparency mandatory between nations, it is also mandatory between civilians as they should have the right to know about potential dangers satellites may bring. Furthermore, increasing the transparency between nations will establish trust amongst them. Trust is the foundation of establishing peace in outer space, thus it is of essence that nations strive to create greater transparency. Although this solution sounds ideal, there are multiple barriers that can prevent nations from being transparent. For instance, nations may decide to conceal satellite information if they have an unfriendly relationship with another nation. Another instance may be that two nations currently in war or in a race for power may not want to reveal such information as they could easily gain leverage over another nation by concealing information. Ultimately, this solution will be very beneficial if implemented, however it would only be effective if all nations agree upon it. Delegates should strive to implement this solution in a way which their country can agree upon the conditions. Consider the following factors: how much information is your country willing to reveal?, is your nation currently competing with other nations in terms of space explorations?, is your nation currently in war/ on bad terms with another nation which might cause them not to reveal satellite information?

Requesting all technology launched into Outer Space to be approved by the UN. The current security in launching objects into space is extremely weak. For instance, people in the United States can freely launch weather balloons into Outer Space without prior permission from any authoritarian government or the UN. Currently, there is a resolution called "Convention on the Registration of Objects Launched into Outer Space" as stated in the treaties and resolutions section of the guide. Delegates should find time to read this resolution as it outlines the current guidelines for sending objects into space. Although this resolution was created, there is no way to prevent organizations and nations from launching weapons into space. For example, private sectors and nations can choose to disguise technology as weather balloons without any consequences due to loose security measures. Thus, this solution requires all technology in space to be approved by the UN by banning the launch of any objects into space without prior approval. The main issue with this solution is that non-member nations and nations competitive in the space industry may not be willing to abide by such laws that ban objects from being launched into space without prior approval. Thus, delegates should write a resolution to which more nations can sign and agree upon, while ensuring that the necessary security measures are needed to be taken.

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