General Assembly 1

Research Report

The Question of:

Prevention of an arms race in outer space

Introduction

Ever since the events of the Cold War in the middle of the 20th century, the international community has worked towards preventing an arms race in outer space. The 'space race' between the United States (US) and the Union of Soviet Socialist Republics (USSR), which started with the launching of the Sputnik satellite in 1957 and ended when the US first landed humans on the moon in 1969, was at least outwardly peaceful in nature. The competition between the US and the USSR created major advancements in space technology. Especially when seen in the context of the nuclear arms race on the earth's surface, the question thus rose whether the competition between the two superpowers would spread to an arms race in outer space. This, despite the idea being toyed with multiple times, did not eventually happen. However, recently a new issue has arisen. The new issue having to do with satellites. More specifically weaponisation of satellites and Anti-Satellite technology (ASAT). Both weaponising satellites and developing anti-satellite technology have been developing systems for both the USSR and the US since the Cold War, and despite there never having been conflict through either yet, the question as to will there be progressively becomes more crucial as prevention of an arms race in outer space (PAROS) negotiations make clear.

The Committee

The General Assembly First committee, also referred to as GA1, is a committee concerning disarmament and international security. The UN general assembly first committee deals with issues and international challenges that threaten peace and can disrupt the global community. The UN committee therefore tends to work closely with the disarmament committee in evaluating all methods to bring peace to pressing issues. The committee was the first to create a resolution of the general assemblies concerning: "Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy" passed in 1946 in order to maintain the usage of Atomic Energy, that had recently been discovered and monitor any problems that could be created through it. They continuously work on resolving issues to work towards the greater goal of establishing peace.

The General Assembly committees will join for a plenary session in order to discuss three resolutions, one from each of the General Assembly committees that has passed in their own committee. The plenary session will take place on the third day of the conference and will conclude this session of LEMUN for the general assembly committees.

Key Terms

ASAT – Anti-Satellite Technology

Arms race - a conflict between nations where the victor achieves more power and superiority through weapons.

PAROS - Stands for: prevention of an arms race in outer space

General Overview

An arms race is defined as "a competition between nations for superiority in the development and accumulation of weapons". A space arms race would then apply this definition in terms of space. Making it a competition for superiority in the militarization of outer space. This idea of militarising outer space is something that has come in many shapes. The most common idea of this being the placement of weapons on satellites. A more extensive and drastic approach to militarising space is the placement of weapons on celestial bodies, such as our moon. The next step would then become using other planets and so on. This has been strictly forbidden however by the 1967 outer space treaty as well as by the 1991 UN PAROS resolution among countless others. This has not been violated, however, has the possibility of being done so with expanded locations. Currently the only other place humans have stood on other than Earth has been out the moon, but development is quickly beginning to open up towards making travelling to Mars a possibility. Leaving the question as to whether or not nations will be desperate to make use of this up to time.

The closest thing there has been to a space arms race was during the Cold War. During the Cold War, both a space and an arms race occurred around the same time period. Depending on how it is viewed, the Cold War didn't necessarily contain a space arms race, however others argue that there was one due to the rapid development that both sides had to have their probes and satellites in space first. The Cold War space arms race began in the 1950s. There had already been development during the second world war, however rapid advancements began with the Cold War as the element of competition and beating the opposition. In 1948 the first monkey was launched into space by the US in a V2 rocket. However, the monkey died upon impact when returning to Earth.

Towards the end of the 1950s, the development of satellites caused many States to worry, specifically due to the simplicity of being able to attach a missile to it and launch it whenever needed. The idea of storing missiles on satellites or having them as a backup to fire if needed was what made people afraid after the success of Sputnik 1 by the USSR. Sputnik 1 was the first artificial Earth satellite. The satellite was launched into a low Earth orbit in October 1957 where it circled for 3 weeks before its battery died. It then returned to Earth after about two months. This success for the USSR was the specific trigger that began what is referred to as the space race.

After the success with Sputnik 1, the US worked to replicate the success of the USSR and were quickly able to successfully launch Explorer 1 three months after the launch of Sputnik 1. Soon thereafter, the key focus became launching living organisms into space. The US had already launched a monkey in 1948 however were unsuccessful in returning him safely. The USSR again was successful over the USA in this with their launch of Sputnik 2 where Leika the dog was launched and then safely returned. Again, the US soon followed with their launch of a chimpanzee in 1958. Then, the idea of putting a man in space became the next big goal. This goal was reached by the USSR first again in 1961. Yuri Gagarin became the first man to have orbited the earth. As development continued it began to focus in on the moon, the closest space object to us. By the end of 1969 a man had walked on the surface of the moon.

Throughout the 1960s, a treaty was developed as space was becoming more and more relevant quickly. And so in 1967 due to the conflict between the USSR and the US regarding space, the Outer Space Treaty was created. This treaty highlighted the need for space to be something that wasn't subject to claims of sovereignty and belonged to all. It also addressed that any achievement in space could be seen as beneficial to the global community as well as discussing how harm caused in space will have major limitations for those who caused it. Most importantly however, the treaty explained how space was not a location to be militarised. This was then again revised in 1991 with the UN

PAROS resolution highlighting the need for space to remain demilitarised among plenty of other treaties and resolutions.

Currently however, more pressing issues are arising. The issues critically at stake presently are the weaponisation of satellites and the development of Anti-Satellite Technology (ASAT). Anti-Satellite technology refers to the creation of a weapon that can be used to destroy or deactivate satellites already in orbit in outer space. Multiple nations such as the US, Russia and China have ASAT systems along with weaponised satellites waiting for instructions.

Satellite militarisation has been an issue developing since the Cold War. The advancements in satellite technology brought this idea into light as militarising satellites seems an easy way to have the upper hand on your opponent if need be. Anti-Satellite technology additionally, was first evolved during the Cold War when both the US and the USSR developed missiles that could be used to launch if ever need be due to the extent of the crisis. Development from both the US and Russia continues to this date. In addition however, China has played a large role in the development of ASATs having tested one in 2007. Despite ASATs never having been used in warfare, the US have predicted that Russia and China's ASATs will become operational "in the next few years". PAROS Negotiations continuously aim to disarm this issue before it becomes crucially plausible.

Major Parties Involved

The US - The United States has been a heavy part of this issue since the beginning of human activity in space. The conflict they had with the USSR throughout the 20th century created a sense of competition which fuelled both sides and their desperation to dominate the other. In addition, many independent space agencies have American origins.

The National Aeronautics and Space Administration (NASA) - is an independent agency of the US federal government. NASA has been crucial to much of the space advancements, having much of their department being devoted to aeronautics and aerospace research.

China - China's space program hasn't been specifically notable over the period of the Cold War due to them still industrialising and advancing themselves in this period. Recently however, China has been significant in advancing their space program with the ultimate goal of being the first to Mars. This challenges the US as they too have this goal.

USSR - The USSR was a major party until the end of the cold war where the USSR became The Russian Federation. In the 1950s the USSR began serious development in satellites and launching objects into space. They had made their first launch with a dog by the end of the decade. However the big win the USSR had made is when they had a man orbit space once successfully before the US, which set them ahead in the following 8 years, whereafter the US had sent people to the moon and back successfully.

Timeline of Events

Date	Event
1945	End of WW2, both the USSR and USA have developed V2 space rockets
June 11 1948	First monkey in space
October 4 1957	Sputnik 1 is launched
November 3 1957	Leika the dog sent to space
January 31 1958	Explorer 1 is launched (USA equivalent of Sputnik 1)
1959	The first man-made object to circle the sun - Luna 1 is launched by the USSR
January 31 1961	Chimpanzee is sent to space and successfully returns
April 12 1961	Yuri Gagarin becomes the first person in space.
May 5 1961	Alan Shepard becomes the first American person in space.
February 3 1966	Luna 9 becomes the first successful man-made object to reach the moon (USSR)
1967	The outer space treaty is developed and signed bringing it into action.
July 20 1969	First manned moon landing is made - Apollo 11 by the USA
1975	China begins development in a space program
2000>	The research by both China and the USA directs itself to be able to reach Mars. Despite China being significantly behind in the development of their space program, they research and adapt quickly in order to keep up with the USA. In addition, ASAT systems become further developed and prioritised

Previous attempts to solve the issue

Most resolutions and treaties created stress the need to prevent an arms race in outer space, which is abbreviated to PAROS. These reiterate the principles of the 1967 Outer Space Treaty. They advocate the ban on weaponisation in space. The treaty which these resolutions was based on, the Outer Space Treaty, was signed in the midst of the space race between the USSR and the USA. The key points brought up in the treaty were how space belongs to all and how the exploration of it can be seen as a benefit to all and is not limited to specific states only. It also discussed how space is not a place to store weapons of mass destruction including nuclear weapons, including storing them on celestial bodies. Additionally, all States must be liable for damage caused to space, however, they must in all cases avoid harming outer space. The UN resolution from 1991 stresses these points however specifically explains the necessity for space to remain demilitarised as it belongs to all.

There have been multiple more attempts, such as the Russia and China: Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (PPWT) which was created by both to preserve peace and tranquility in space in addition to creating a legal framework through negotiations in order to prevent a space arms race. The European international space code of conduct has been another attempt to work towards a solution and is often described as the European equivalent of the Russian and Chinese PPWT. The code advocates that space use should only be done in a peaceful manner. Lastly, The Moon Treaty which came into effect in 1984 that stated that all celestial bodies belong to the international community. These three actions in addition to the treaties and resolutions that highlight the principles of PAROS prove as evidence for the desire for a peaceful and unmilitarized outer space.

The Future

Despite there currently not being a drastic problem that must be solved, the possibility of one arriving in the future will steadily increase when states become more and more desperate to come out in power and on top. The plausibility of an arms race in space is daunting and so should be solved quickly before it ever has the chance to become one. Currently, the only plans for the future are the continuation of the development of the rockets that can hopefully one day bring people to Mars and with this a steady increase in tensions in power. However, with the issue of ASAT systems further developing in addition to the issue of militarising satellites, the future becomes unclear as to whether or not PAROS negotiations will be able to prevent these technologies from being brought into action.

Important decisions a resolution must take

For a resolution to be successful, it is important to think about the severity an issue such as this could become if it is ever to evolve. Therefore, the following questions are crucial to consider when thinking about outer space and what is to come of it:

- How can we prevent an arms race?
- If so how can we enforce this?
- At what point is an arms race occurring?
- How are other nations affected if two are in an arms race in space?

Then, focussing more specifically on the issue of ASAT systems further developing as well as the issue of militarising satellites:

- How can we ensure that methods such as these are never felt that they needed to be used?
- Can we demilitarise the satellites?
- What does a potential conflict through these methods mean for uninvolved states?

Questions such as these and many more are what delegates need to consider when structuring a thorough and well thought out resolution.

Further Reading

Useful sources:

http://www.reachingcriticalwill.org/resources/fact-sheets/critical-issues/5448-outer-space

https://www.nti.org/learn/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/

https://fas.org/programs/ssp/nukes/ArmsControl_NEW/nonproliferation/NFZ/NP-NFZ-PA-ROS.html

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