



Issue description

Committee: Disarmament and International Security Committee (DISEC)

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Introduction:

The outer space has been used as an outlet of technological development for the benefit and advancement of mankind for many decades; however, maintenance of its use for peaceful purposes can only be achieved through international cooperation between nations, which can be especially difficult with presence of mistrust and nations' fear of losing military superiority. Space warfare--that is, military and hostile combat outside Earth's atmosphere--may seem like a distant and implausible conflict to occur at this day and age, and while no obvious steps have been taken as acts of aggression currently, countries are making provisions for possible weaponization of space. Space warfare is a relatively new tangible risk for the international community, as it has been an area of possible conflict only beginning in mid-20th century, majorly as part of the Space Race between the USA and the USSR. Nevertheless, alarmingly, nations worldwide have increased their dependence on the development and usage of satellite technologies for military purposes, including espionage, weapons testing, among others. As a result, the importance of creating a strong framework that would regulate and delimit the weaponization of space has become a point of reaffirmation. As states advance exponentially in space-related technology, the ambiguous nature of previous multilateral agreements such as the Outer Space Treaty threatens collective security of our societies. Hence, it is imperative that the nations work towards replacing outdated agreements and treaties with more relevant, definite covenants.

Definition of key terms:

Militarization

Militarization of space is defined as the “use of space-based technology and infrastructure for the purposes of supporting military operations and functions (including reconnaissance, navigation, and use of satellite targeting systems for terrestrial weapons).”

Weaponization

Weaponization of space often refers to the placement weapons or space-based devices that have a destructive capacity. The definitions of militarization and weaponization often get intermingled, and some argue that both practices are inherently similar.



Reconnaissance

Reconnaissance refers to the examination or inspection of an area for gaining intelligence on enemies, physical features of the region.

General overview:

Brief History

Some early implications of space warfare begin in the First World War, where international military powers were developing and using solid fuel rockets as weapons. After Germany's defeat in the war and restrictions made by the Treaty of Versailles, Germany founded "Society for Space Travel" in 1927, where it experimented with liquid-fuel rockets. After several successful developments, "several members of the society joined the military to assist with its rocket research, eventually leading to the creation of the infamous V-2 missile in 1942". The V-2 missile was used by Germany in a rocket attack on London in 1944.

However, it wasn't until after the Second World War that conflict extended beyond Earth's atmosphere, through the technological, military, and political developments of the late 1950s and early 1960s some of which included the evolution of nuclear weapons technology, weapon delivery systems such as endo-atmospheric and exo-atmospheric launchers, and a political/military relationship between the United States and the Soviet Union. Since "Sputnik 1", the first satellite ever to be launched to outer space, deployed by the USSR on October 4th of 1957, the usage of space altered. The so-called 'Space Race' during the Cold War between the world's largest superpowers, the Soviet Union and the United States, used space as an arena to extend their political and economic competition, through an extensive display of superiority of their military technology. This event was one of the most alarming conflicts that involved a highly militant and determinant use of outer space and could have very well resulted in a mass destruction. Some of the notable military technologies that were developed and used include the introduction of the intercontinental ballistic missile (ICBM), which was revolutionary due to its ability to strike any target on Earth in a matter of minutes, or the R-360RB Fractional Orbital Bombardment System and Polyus orbital weapons system (developed by USSR), which could potentially carry out successful attacks if not for international treaties that restricted their usage.

Although the Cold War ended in 1991, space research continued to progress and numerous other nations such as France, Italy, China, India, and Japan have launched military satellites into space, which could potentially mean a larger field of competition and quest for supremacy if an outer space war were to develop.



Types of Space Weaponry

Space weaponry can be categorized in the following three areas: space-to-space, earth-to-space, space-to-earth. Space-to-space remains, at this moment, largely theoretical, but could potentially include orbiting objects attacking enemy satellites, spaceships, or space stations, while earth-to-space weapons are usually thought of as ballistic or nuclear missiles. And lastly, and perhaps the most fatal, space-to-earth technology, involves the use of orbital weaponry and bombardment, and could pose threat to cities and humans that populate the Earth. However, although this type of warfare was banned by the Outer Space Treaty signed in 1967, the use of laser weaponry, cyber-attacks, and tactical weapons remains largely unrestricted due to the ambiguity of the said treaty.

Some of the major types of space armaments are ICBMs, military satellites such as Global Positioning Systems (GPS), and Anti-Satellite Weapons (ASATs). The United States, Russia, India, China, France, Israel, and North Korea are all in possession of ICBMs. In fact, North Korea launched its first successful ICBM in the summer of 2017, which is alarming as North Korea's political instability can cause legitimate security threats. Military satellites are also crucial for the militarization of space. Besides their regular, non-violent use, they also serve an essential role in military operations by providing services such as “reconnaissance, navigation, communication, and early warning of aerial attacks”. On the other hand, Anti Satellite Weapons (ASATs) are designed to destroy military Satellites. ASAT tests have been conducted by United States, China, and the Russian Federation within the past decade.

Current Situation

The past two decades, the international community has seen multiple nations regain interest in activities related to outer space. The United States withdrew from the Anti-Ballistic Missile Treaty in 2001, which definitely was a step back in international cooperation and increased tensions with her rival, the Russian Federation. Furthermore, US has been developing ground and sea based “missile defenses”, which have led to increased missile proliferation. In January 2007, China tested an anti-satellite weapon against an old weather satellite. The United States, although condemning the test, “forged ahead with several space and missile defense projects with dual-use capabilities”. During Obama’s presidency, US National Space Policy was released in July 2010 by the US administration. It states that the US shall “pursue bilateral and multilateral transparency and confidence-building measures to encourage responsible action in, and the peaceful uses of, space.”

On March 1st, 2018, Vladimir Putin announced that Russia was updating its anti-missile defense systems. Consequently, President Trump denounced said action as ‘illegal’ as based in the Anti-Ballistic Missile Treaty, which was concluded in 2002. June 18th, 2018, President Trump established the sixth branch of the US Military, called the Space Force, stating: "It is not enough to merely have an American presence in space. We must have American dominance in space." Shortly after, the US Congress directed the Pentagon, in the 2019 defense bill, to “begin work on a space-based missile interceptor”.



Major Parties Involved:

The United States of America

"That supremacy in space has enabled us to have the world's greatest war-fighting capability ... whether it is our soldiers on the field, our drones that fly overhead, our bombers that travel around the world, intelligence we collect." - Steve Isakowitz, CEO of The Aerospace Corp.

Currently, the United States possesses more military satellites and space arms than any other nation in the world. However, close to USA's position are countries such as China, Russia, and India. Thus, the United States is wary of these nations advancing to the point at which the U.S. space program is no longer clearly the best in the world. In addition, the United States is not favorable for various limitations and regulations regarding space arms and satellites. In 2015, the United States opposed China's and Russia's proposed treaty to ban arms in outer space.

Russian Federation

Russia has been active in the Conference on Disarmament and works majorly with China, and is in competition with the USA. Russia monitors US's actions and responds to them in a way that would ensure its power is not being threatened. Currently, although Russia is among the top countries who engage in space related activities, it's development is not at the same rate as it was during the Cold War. Russian Federation believes that militarization of space is a threat and hence supported CD/1710 in 2003 and alongside China in concepts presented in CD/1679.

China

China has played an extremely active role in the Conference on Disarmament (CD) over the last decade. Propositions from the Chinese delegation regarding PAROS often deal with the legal aspect of outer space. The nation has also advocated in favor of strengthening the conference on disarmament and specifically the prevention of an arms race in outer space. On the other hand, as previously mentioned, China is developing and testing some space related technology, and one of its goals is to "build China into a space power in all respects". It currently spends 11 billion dollars on space related activities, the second highest after US's 48-million-dollar spending.

European Union and European Space Agency

European Union countries although not possessing as high of space arsenals as say the United States, are still active in space and have significant interest and influence in the international decisions made regarding space weaponization. These nations realize the advantages of space militarization but also push for reaching an international consensus on peaceful uses of outer space. It is also worth noting that these nations are allied with the United States and would



support the USA in the case of any disagreements. The United Kingdom, France, and Germany are the nations in this bloc that are the most active in space and have the most substantial space arsenals. European Space Agency Is an intergovernmental organization that involves 22 countries and is dedicated to space exploration.

Canada

Canada aims at building confidence and trust between nations and generally providing a framework for international operation in outer space. Two of the most significant Canadian initiatives have been CD/1815 “Transparency and confidence building measures in outer space” and CD/1569 “Proposal concerning CD action on outer space”.

**Note: See the Annex for more detailed on specific countries’ perspectives, stances and history*

Relevant UN Bodies

Conference on Disarmament - primary body where UN disarmament issues are discussed; Russia and China are actively involved, trying to push for resolutions that relate to Prevention of Arms Race in Outer Space (PAROS)

Committee on Peaceful Uses of Outer Space (COPUOS) - established in 1959 by the UN General Assembly in resolution 1472. The Committee consists of 67 member states, and two subcommittees: the Scientific and Technical Subcommittee and the Legal Subcommittee. They have annual meetings in Vienna and their decisions are implemented by the UN Office for Outer Space Affairs.

UN General Assembly Fourth Committee - played a crucial role in advancing space cooperation and provides a unique opportunity for the exchange of information among governments on the latest developments in the use and exploration of outer space.

International Telecommunications Union – plays a vital role in the management of the radio-frequency spectrum and satellite orbits, finite natural resources which are increasingly in demand from a large number of services such as fixed, mobile, broadcasting, amateur, space research, meteorology, global positioning systems etc.

Timeline of events:

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| June 5, 1927 | The Verein für Raumschiffahrt (Society for Space Travel) is founded mainly by Germans in Poland |
| October 3, 1942 | Germany conducts its first successful V-2 rocket test; the V-2 rocket was the world’s first long-range guided ballistic missile |



October 4, 1957	The Soviet Union successfully launches Sputnik I, the world's first artificial satellite
January 31, 1958	The United States successfully launches Explorer I, America's first artificial satellite
July 29, 1958	The United States Congress passes the National Aeronautics and Space Act, creating the National Aeronautics and Space Administration (NASA)
December 13, 1958	The General Assembly establishes the United Nations Office for Outer Space Affairs.
December 12, 1959	The General Assembly establishes the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) as an ad hoc committee
August 5, 1963	The Partial Test Ban Treaty is signed, prohibiting the testing of nuclear weapons in the atmosphere and outer space.
January 27, 1967	The Soviet Union, the United Kingdom, and the United States of America sign the Outer Space Treaty, which effectively made space weapons unlawful
2002	Anti Ballistic Missile treaty ended
January 11, 2007	China conducts an anti-satellite missile test, destroying a weather-watching satellite that had been orbiting Earth since 1999.
February 21, 2008	The United States Navy destroys malfunctioning U.S. spy satellite USA-193
June 15-16, 2009	"Space Secretariat Security 2009: Moving towards a Safer Space Environment" conference
March 29-30, 2010	Conference organized by UNIDIR entitled "Space security 2010: From foundations to negotiations"
July 27-31, 2015	EU and the United Nations Office for Disarmament Affairs (UNODA) organized Multilateral Negotiations on an International Code of Conduct for Outer Space Activities
April 4, 2016	The Russian Federation and Venezuela released a joint statement to the Conference on Disarmament declaring that "they will not be the first to deploy any type of weapon in outer space".
September 16, 2016	the United States of America submitted the following report to the Conference on Disarmament: "Implementing the Recommendations of the Report (A/68/189*) of the Group of Governmental Experts on Transparency and Confidence-



building Measures in outer space Activities to Enhance Stability in Outer Space.”

June 16, 2017

EU Member States issued a statement to the Conference on Disarmament Working Group on the “Way Ahead” that proposed a multilateral non-legally binding instrument on Space Security.

Previous attempts to solve the issue:

1. The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (“Outer Space Treaty”), 1967. This treaty forms the basis for international space law; it bans weapons of mass destruction and states no country can ‘claim’ the moon or any other planet or object, and that space should be used for ‘peaceful purposes’.
2. Resolution A/RES/65/68, adopted by the General Assembly, established “a group of governmental experts (GGE) to conduct a study on outer space transparency and confidence-building measures (TCBMs)”.
3. Convention on Registration of Objects Launched into Outer Space (effective in 1976) - each state needs to register with the UN about the orbits of all their space objects.
4. Creation of the Conference on Disarmament in 1979 - this is one of the most important attempts taken on by the international community to combat weaponization and violent uses of space.

Possible solutions and approaches:

Questions to consider:

- Does your nation have a space program?
- What is and what is not the “peaceful” use of outer space?
- Can the right to space exploration by each state be limited?
- If a new treaty were to be constructed, which new set of rules or regulations, if any, would your nation seek to include?

Some steps to begin finding a way to combat the possibility of space warfare would be to establish a strong legislation, and close/define any ambiguity and loopholes that may exist within the current UN resolutions or treaties. Moreover, steps towards raising public awareness regarding the dangers and the risks of a possible arms race in space should be taken, so the public is informed on the importance of avoiding such an event. Finally, during the creation of their resolution, it is vital to address all aspects of the issue at hand, as it is important for the final resolution to have a holistic approach towards PAROS.



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Annex:

Research for stance of certain countries:

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China: <https://aerospace.csis.org/space-threat-2018-china/>

North Korea: <https://aerospace.csis.org/space-threat-2018-north-korea/>

Iran: <https://aerospace.csis.org/space-threat-2018-iran/>

Israel, India, Pakistan Japan, Europe, Ukraine, Egypt, Libya: <https://aerospace.csis.org/space-threat-2018-other-actors/>