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Disarmament and International Security Committee

DISEC

Topic 2: Measures to Define and Regulate Militarization and Weaponization of Outer Space

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INTRODUCTION:

Space today continues to be a field of study for all subjects. However, in the field of international relations it is a complicated issue to deal with that continues to create disputes between nations, international organizations and all actors involved. Many states want to take advantage of the space with different purposes, mainly warlike and strategic goals.

At the crossroads of technological innovation and global security, a complex dichotomy is created. The militarization of space can be a great advance in defense and communication. However, it may also cause fundamental concerns regarding peace, stability, weapons creation, and proliferation.

This challenge transcends national borders and requires a precise and thorough analysis of the ethical, legal and geopolitical implications. The dependence of states on space infrastructure raises certain questions related to free circulation, regulations governing the use of space resources and technologies. Furthermore, the race that began decades ago to dominate space introduces a geopolitical dynamic of great

relevance. There are great rivalries, differentiated by blocs, raising the fear of arms escalation and highlighting the need to maintain stability.

This problem calls for fundamental reflection on the future of humanity in outer space. In addition, the preservation of a safe and peaceful space environment, accessible for future generations, must be considered. Finding common ground between nations will be of great global interest.

THE ISSUE:

As described above, this issue is of great international importance as it affects the security of all nations. It is a strategic issue that mainly covers the use of space technology with military implications. This generates a great debate about global stability and the need for clear regulations. One of the objectives is to explore the key points and crucial dilemmas, from the dependence on satellites to the risks of an arms race in orbit.

The increasing importance of satellites for communication, navigation and surveillance has caused intense competition for control and security. From concerns about the vulnerability of space systems to ethical debates about the deployment of weapons in space, an in-depth analysis is required that not only explores national interests, but also the need for international consensus that preserves stability and security in space.

Weapons in space

Significant challenges arise regarding international stability and global security. The placement of weapons on satellites and the deployment of defensive systems represents a potential threat. The ability to attack targets from space, disable vital infrastructure or ASAT (Anti-Satellite) systems raises serious concerns regarding escalating conflicts and preserving peace.

Numerous treaties and agreements aim to regulate space activities by banning weapons of mass destruction in orbit. However, due to the ambiguity in the interpretation of these documents and the evolution of space technologies, new challenges have been raised in connection with these regulations. It is essential that the international community addresses this issue from a disarmament perspective, through the adoption of concrete measures.

There is an urgent need to debate and develop proposals that promote effective regulation and control. The preservation of peace and the sustainability of outer space are two of the great approaches that nations must consider in this new, increasingly complex and strategic space environment.

Satellite vulnerability

The vulnerability of satellites is a crucial issue in the functioning of our societies. These devices are essential for various activities such as communications, navigation and earth observation. However, their dependency and exposure to potential threats make them sensitive targets.

The interconnection of our global networks and information systems with satellites causes them to be vulnerable to malicious interference and even cyberattacks. The lack of security measures could cause unauthorized access to information systems, compromising critical data or vital services. Additionally, the increasing amount of space debris and the possibility of accidental collisions or intentional destruction of satellites could lead to disasters.

Creating regulatory frameworks and promoting practices that protect these critical assets are fundamental to space security. In addition, it is important to maintain the continuity of vital services that depend on the functionality of satellites. The potential impact of a satellite outage goes beyond the commercial and military fields, but it would affect the daily lives of millions worldwide.

Balance of power

The balance of power between nations is a key factor when addressing the militarization and weaponization of space. The competition for dominance in space has become a crucial point in geopolitical strategy, as nations seek to maintain their position and security. The development and deployment of space weapons disrupt this balance and can cause tensions by manipulating or damaging critical space assets.

Dominance in space offers strategic advantages such as surveillance, communications positioning and control of navigation systems. This raises concerns about the possibility of an arms race in space, where nations compete to secure their own advantage.

Nations should focus on finding common ground to regulate the use of space, promote transparency in space activities, and avoid an arms race. International collaboration

and the implementation of arms control measures are important to preserve a stable balance of power.

National Security vs Global Security

Nations' efforts to protect their strategic interests and protect themselves from potential threats in space carry the risk of triggering an arms race that threatens international stability. The intersection between national security and global stability in space requires an assessment of the risks and benefits of military presence. Countries must strengthen their strategic position while taking into account the impact of military actions in space.

Preserving global stability in space requires careful conversations about the balance between national interests and the collective goals of disarmament and international cooperation. This involves exploring strong international agreements that regulate and control the deployment of weapons in space, as well as promoting transparency and trust between nations.

A consensus among states to address the militarization of space must be based on a collaborative approach and focus on the preservation of global stability. Countries should cooperate to establish arms control protocols and ensure compliance with existing treaties.

Arms race

The deployment of satellite weapons, anti-satellite systems, and development of directed energy technologies pose significant risks to global stability. The possibility of using these weapons to attack ground targets or disable infrastructure from space raises concerns about escalating conflicts.

Competition between nations for dominance in outer space can lead to an uncontrolled arms race. Deploying weapons in orbit or interfering with enemy satellites could drive a response and counterresponse dynamic between powers. This situation poses a critical challenge for the international community, as the absence of clear regulations and agreements could result in an unlimited race.

The 1967 Outer Space Treaty prohibits nuclear weapons and other weapons of mass destruction in space, but its applicability to conventional weapons or emerging technologies has been a matter of debate. Ambiguity in this area and the lack of

effective verification mechanisms pose challenges to controlling the development and deployment of space weaponry.

Space Debris and Environmental Impact

This problem not only raises concerns about the proliferation of weapons, but also generates growing concern about space debris and its environmental impact. The presence of anti-satellite weaponry and testing can generate a large amount of space debris, satellite and rocket fragments, which pose a significant threat to the safety and sustainability of the orbital environment.

The uncontrolled growth of space debris not only puts existing orbital infrastructure at risk, but also increases the likelihood of generating cascades of collisions, known as "Kessler syndrome," where initial collisions generate more fragments, intensifying the problem and making it even more difficult future space missions.

Approaches that address both the proliferation of weapons in space and the effective management of space debris should be explored, seeking to develop control, cleanup and prevention measures that reduce harmful effects on orbital infrastructure and promote the long-term sustainability of the space environment.

Espionage and hostile surveillance

The growing presence of space technology has raised concerns about espionage and hostile surveillance in space.Satellites used for these purposes can observe military activities, monitor strategic installations and collect sensitive information, posing significant security challenges..

The deployment of satellites with advanced reconnaissance capabilities and signal interception can be used to obtain confidential information, compromise the security of other countries and increase distrust between nations. These types of activities can trigger defensive and strategic responses, generating a possible escalation that threatens global stability and international peace.

MAIN REGIONS AFFECTED:

The militarization and weaponization of outer space affects all regions of the world due to the global reliance on satellite systems. However, it is particularly critical for countries with advanced space programs, such as the United States, Russia, China,

India, Japan, and members of the European Union. These regions possess the capabilities to launch, maintain, and potentially militarize space assets.

Additionally, developing nations are indirectly affected, as they rely on international satellite services for communication, navigation and disaster response. Any disruption or conflict in space can severely impact their economic and social infrastructure. Hence, while only a few nations control space militarization, the consequences are globally distributed.

KEY EVENTS

Event/ Date	Explanation
Sputnik 1/1957	The launch of this device by the former Soviet Union marks the beginning of the space age and the awakening of interest in the military potential of space.
NASA/1958	It emerged as a response to the launch of Sputnik 1 by the Soviet Union, whose main objectives are currently space exploration, scientific research and technological development.
Outer Space Treaty/1967	This treaty prohibits the placement of nuclear weapons and other weapons of mass destruction in space.
ISRO/1969	This initiative and program by the Indian government has a series of missions focused on scientific research, communication, navigation, and lunar and planetary exploration.
ESA/1975	It emerged as a collaboration between several European countries to develop space and technological capabilities that a country alone could not achieve.
Strategic Defence Initiative (SDI)/1983	A program promoted and developed by the administration of United States President Ronald

	Reagan to develop anti-missile defense systems in space.
Launch of the first ASAT system/1985	The Soviet Union conducts successful tests of an ASAT anti-satellite system in orbit. This action caused an intensification of the arms race in space during the so-called Cold War.
End of the Cold War and changes in space exploration/1991	After the end of the Soviet Union, tensions in the space arms race reduced. This led to a shift in the focus of space missions toward international cooperation, such as the construction of the International Space Station (ISS).
Roscosmos/1992	The Russian State Space Corporation emerged after the dissolution of the Soviet Union and inherited a large part of those resources, facilities and projects of the Soviet space agency.
CNSA/1993	The China National Space Administration was established to impulse the country's space program and develop capabilities in space exploration, lunar missions, Earth observation satellites and space communications.
September 11 terrorist attack/2001	Due to the attacks on the Twin Towers in New York, the focus of international security policy changes, including possible threats in space and the need to protect space assets.
China ASAT Test/2007	China conducts a successful test of an antisatellite weapon ASAT, causing the destruction of one of its own satellites. This action raises global concerns about the proliferation of weapons in space. The amount of space debris is also increasing.
Space Force/2019	The United States government establishes the Space Force as an independent military branch, with the goal of protecting space assets and increasing defense capabilities in space.

Cosmos 2542/2020	This new Russian special military mission believed to have ASAT capabilities is launched, raising concerns about the arms race in space.
Rising concern over space debris/2021	Concern intensified over the amount of space debris in orbit around Earth. Collisions or tests of anti-satellite weapons increased the number of fragments in orbit.

PREVIOUS ATTEMPTS AT SOLVING THE MATTER:

The militarization and weaponization of space have been one of the persistent concerns, promptingmultiple attempts at resolution over decades. Possibly the most internationally significant milestone was the Outer Space Treaty of 1967, which developed the legal basis for maintaining space as a peaceful domain by prohibiting nations from using nuclear weapons and other weapons of mass destruction in space. As of 2025, this agreement has been signed by 139 and ratified by 117 nations. In addition, they have carried out bilateral agreements between nations to limit the militarization of space. These agreements, although of great national and international relevance, face challenges due to technological evolution, which may generate gaps in regulation.

The UN has been a key international organization for discussing and addressing the issue of space militarization. It has issued resolutions, such as 37/92 and 65/68, enacting debates that seek to promote transparency, trust and international cooperation in space. However, limitations in the UN's ability to enforce regulations have been evident. Technological advances continue to challenge limits and continuously create new opportunities for the development and deployment of weapons in space.

As space technologies have evolved, new proposals have emerged for additional treaties and protocols that strengthen existing regulations. These proposals seek to close legal inconsistencies and adapt to technological advances that could facilitate space militarization, although the technical and political complexity of these efforts remains an obstacle. Proposals such as the creation of spatial codes of conduct seek to establish rules of behavior that reduce the risk of conflict and promote greater

cooperation between spatial actors. This problem has generated debates about the need for a new international legal framework. Specific conventions regulating the deployment and use of weapons in space have been proposed and some advocate a comprehensive treaty that specifically prohibits the use of weapons in orbit.

Resolving this problem requires a multilateral approach and significant political will. The challenge focuses on balancing national security with the preservation of global peace and stability in space. Cooperation between major space powers and the commitment of all interested nations are crucial to moving towards an effective regulatory framework that guarantees the peaceful and sustainable use of outer space.

In summary, while efforts have been made internationally to address the militarization and weaponization of space, technical and political complexity, along with constant technological evolution, continue to challenge the creation of an effective regulatory framework to completely prevent the militarization of space.

POSSIBLE SOLUTIONS:

To address the challenge of space militarization and weaponization, an approach that fosters international cooperation and establishes effective regulations is required.

- Nations should work to create treaties and protocols that specifically prohibit the deployment of offensive weapons in space and limit the development of anti-satellite technologies, similar to the 1967 Outer Space Treaty, but with more detailed provisions.
- By establishing verification protocols that allow countries to monitor and verify compliance with space treaties.
- Continuous communication and cooperation between nations through forums to discuss and negotiate agreements that regulate military activity in space.
- Nations could invest in defense technologies such as satellite attack protection systems to safeguard their space assets without contributing to arms escalation.
- By promoting education about the risks and consequences of the militarization of space among the international community. Raising awareness about the negative impacts of a space arms race can galvanize broader support.

SOURCES / USEFUK LINKS

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