GALMUN 2024

DISEC

Research Report

Definitions

UNODA: The UN Office for Disarmament Affairs (UNODA) has a longstanding legacy that portrays the dynamic when it comes to the significance of the elimination of arms that go hand in hand with global peace and security.

Militarization of outer space: The militarization of outer space involves "the use of space capabilities to support military operations occurring on earth." - Dr. Fabio Tronchetti. In other words: the placement and development of weaponry and military technology in space. This includes the use of space for military spacecraft, such as imaging and surveillance satellites, GPS and more.[1]

Weaponization of outer space: The weaponization of outer space is the placement and development of weaponry and military technology in space.[2] According to the Prevention of the Placement of Weapons in Outer Space treaty, a weapon in outer space is defined as "any device placed in outer space, based on any physical principle, which has been specially produced or converted to destroy, damage or disrupt the normal functioning of objects in outer space, on the Earth or in the Earth's atmosphere, or to eliminate a population or components of the biosphere which are important".[3]

Background

Space has been militarized since the earliest communication satellites were launched. Today, militaries all over the world rely on satellites for command and control, communication, monitoring, early warning, and navigation with the Global Positioning System (GPS).[4]

Although the military use of space is not new, it has developed and become more advanced in recent years. Major world powers, such as the US, Russia, and China, have now established their own militarized units that specialize in operations in outer space. This indicates that space has become "a new war-fighting domain". This is major because countries around the globe have become heavily reliant on the data and interconnectivity that space systems provide in Military, social, and commercial initiatives, thus creating new realms of vulnerability. This is especially true for modern warfare that makes heavy use of satellites for directing drones and cruise missiles.[5]

The prevention of an arms race in outer space (PAROS) is a critical issue discussed in UN disarmament forums. Various countries have different perspectives on this matter, with some advocating for treaties to prevent the weaponization of space, while others continue to develop

[1] https://www.linkedin.com/pulse/space-militarization-weaponization-bryant-mishima-baker-esq-
[2] https://ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-74/jfq-74_110-115_DeFrieze.pdf
[3] https://ndupress.ndu.edu/Media/News/Article/577537/defining-and-regulating-the-weaponization-of-space/
[4] https://www.reachingcriticalwill.org/resources/fact-sheets/critical-issues/5448-outer-space
[5] https://behorizon.org/increased-militarisation-of-space-a-new-realm-of-security/

military capabilities in outer space. The complexity of security issues in outer space is increasing due to technological advancements, potential threats to space assets, and the interconnectedness of space security with economic and social stability on Earth.[6]

UN treaties and resolutions

The Outer space Treaty (1967)

The Outer Space Treaty, once called by the name "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies," is a treaty that was initiated to define and establish the principles that would guide the exploration and use of outer space. It was opened for signature by the United Nations General Assembly in 1967 and entered into force on October 10, 1967.

The treaty forms the basis of international space law and has been ratified by over 100 countries. It is considered a foundational document for promoting cooperation, peaceful uses of outer space, and preventing the militarization of space.

Several in-depth paragraphs outlining strategies for guaranteeing that space remains a secure scientific domain for humanity, rather than serving as a theatre of hostilities and conflicts.

The following has been agreed upon by the states that signed the treaty:

- “The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.”
- “There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage international co-operation in such investigation.”
- “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means” (This implies that no nation may assert that the moon or any other celestial body is a part of its territory, something that was possible given the ongoing Cold War at the time).
- “The moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and

[6] https://press.un.org/en/2022/gadis3698.doc.htm

fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden".

General Assembly resolution, (1961), A/RES/1721

On the topic of "International Co-operation in the Peaceful Uses of Outer Space", states the following:

- "Outer space and celestial bodies are free for exploration and use by all states in conformity with international law and are not subject to national appropriation."
- "International law, including the Charter of the United Nations, applies to outer space and celestial bodies."
- "To maintain close contact with government and non-governmental organizations concerned with outer space matters."

General Assembly resolution, (2000), A/RES/55/122

On the topic of "International Cooperation in the Peaceful Uses of Outer Space", states the following:

- "Seriously concerned about the possibility of an arms race in outer space."
- "Recognizing that all States, in particular those with major space capabilities, should contribute actively to the goal of preventing an arms race in outer space as an essential condition for the promotion of international cooperation in the exploration and use of outer space for peaceful purposes."

General Assembly resolution, (2013), A/RES/68/74

On the topic of "Recommendations on national legislation relevant to the peaceful exploration and use of outer space", states the following:

- "Observing that, in view of the increasing participation of non-governmental entities in space activities, appropriate action at the national level is needed, in particular with respect to the authorization and supervision of non-governmental space activities."
- "Space activities should require authorization by a competent national authority."
- "States could consider ways of seeking recourse from operators or owners of space objects if their liability for damage under the United Nations treaties on outer space has become engaged."

Current situation:

Recent years have witnessed a notable increase in the military utilization of space by various countries, reflecting a trend that sees space as a critical domain for national security and defence capabilities. The following are examples of countries that have utilized space for military purposes and the outcomes of such endeavours:

United States and Russia:

The United States has been focusing on developing space-based sensor systems to track and deal with hypersonic missiles, which are difficult to detect and intercept from the ground. Such missiles, developed by countries like China and Russia, travel at speeds of Mach 5 or higher, posing significant challenges to existing ballistic missile defence systems. The US's response includes the potential development of space-based ballistic interception capabilities and directed energy weapons.

Russia

Russia, while expressing opposition to the weaponization of space, acknowledges the importance of developing systems to support military operations from space, such as navigation, communication, and reconnaissance. Despite its diplomatic stance against space-based weapons, Russia maintains active military space programs in areas like early warning, optical reconnaissance, and signal intelligence, which underscores the complexity of its approach to space militarization.

China

China's space program, characterized by significant achievements such as the Mars rover landing and the Chang'e 4 mission to the moon's far side, also underscores its military interests in space. While official missions do not express military motives, analysts believe that the People's Liberation Army of China is keenly observing these missions for potential military advantages, such as intelligence collection or satellite disruption capabilities during conflicts. China's advancements in space have raised concerns about its capabilities to use direct energy beams to disrupt other countries' satellites and its development of anti-satellite weapons to potentially jam US navigation satellite signals.

Japan

Japan has been developing a multi-layered ballistic missile defence (BMD) system in response to evolving threats, including hypersonic glide vehicles (HGVs) developed by countries like China and Russia. These HGVs travel at speeds that significantly challenge interception

capabilities. Japan's strategy includes equipping Aegis ships with ballistic missile response capabilities and deploying Patriot (PAC-3) missiles. The Japanese government's decision to abandon the deployment of two land-based Aegis systems underscores the challenges and the shifting focus in Japan's defence strategy towards more comprehensive and cost-effective defence systems, including space-based components to enhance its protective capabilities against airborne threats.

Timeline of Relevant Treaties and Resolutions

1961: GA resolution "International Co-operation in the Peaceful Uses of Outer Space" A/RES/1721 is adopted.

1967: The signing of the Outer Space Treaty.

1972: Anti-Ballistic Missile Treaty is signed.

1974: The signing of the Convention on Registration of Objects Launched into Outer Space.

2000: GA resolution "International Cooperation in the Peaceful Uses of Outer Space" A/RES/55/122 is adopted.

2013: "Recommendations on national legislation relevant to the peaceful exploration and use of outer space" A/RES/68/74 is adopted.

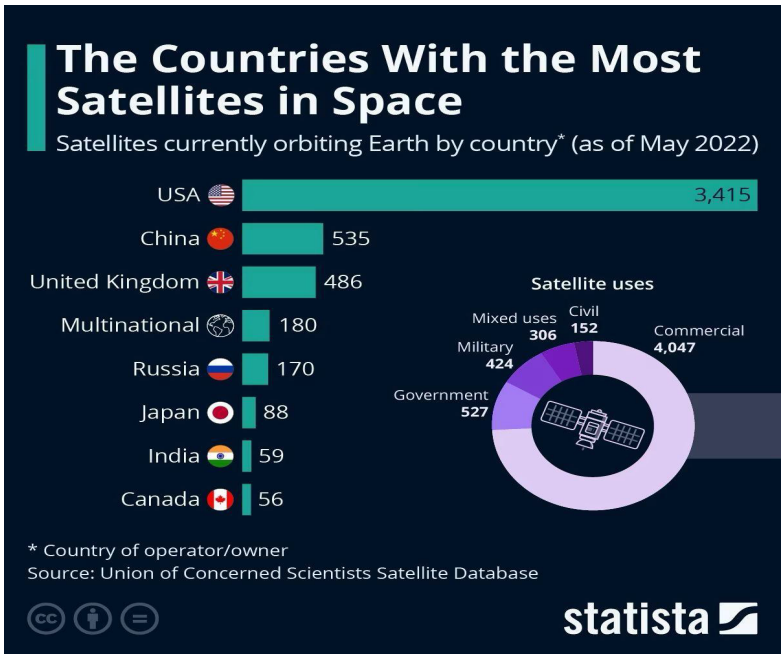
2020: GA Resolution "Preventing an arms race in outer space" A/RES/75/35 is adopted.

Questions to consider

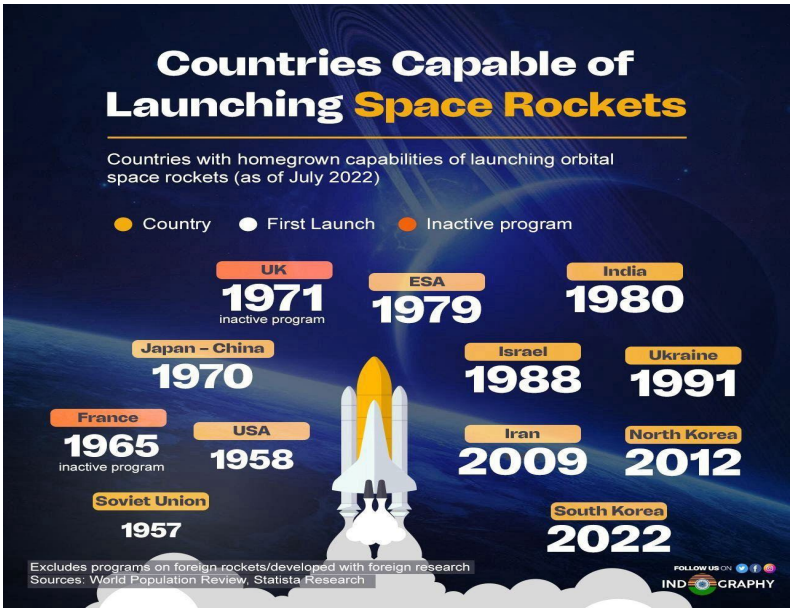
- How advanced is your country in space affairs and technology?
- Does your country condemn the weaponization of space?
- Has your country taken measures to prevent or contribute to the weaponization of space?
- How does your country contribute to international treaties or agreements aimed at preventing the militarization of space?
- What are the potential consequences for your country if space becomes a domain for military conflict?
- What initiatives has your country undertaken to promote space sustainability and security?
- Is your country engaged in any diplomatic efforts to promote space demilitarization on an international scale?

- Does your country collaborate with other nations and organizations to promote peaceful uses of outer space?
- What measurements can be taken on an international scale, to reduce the militarization/weaponization of outer space?

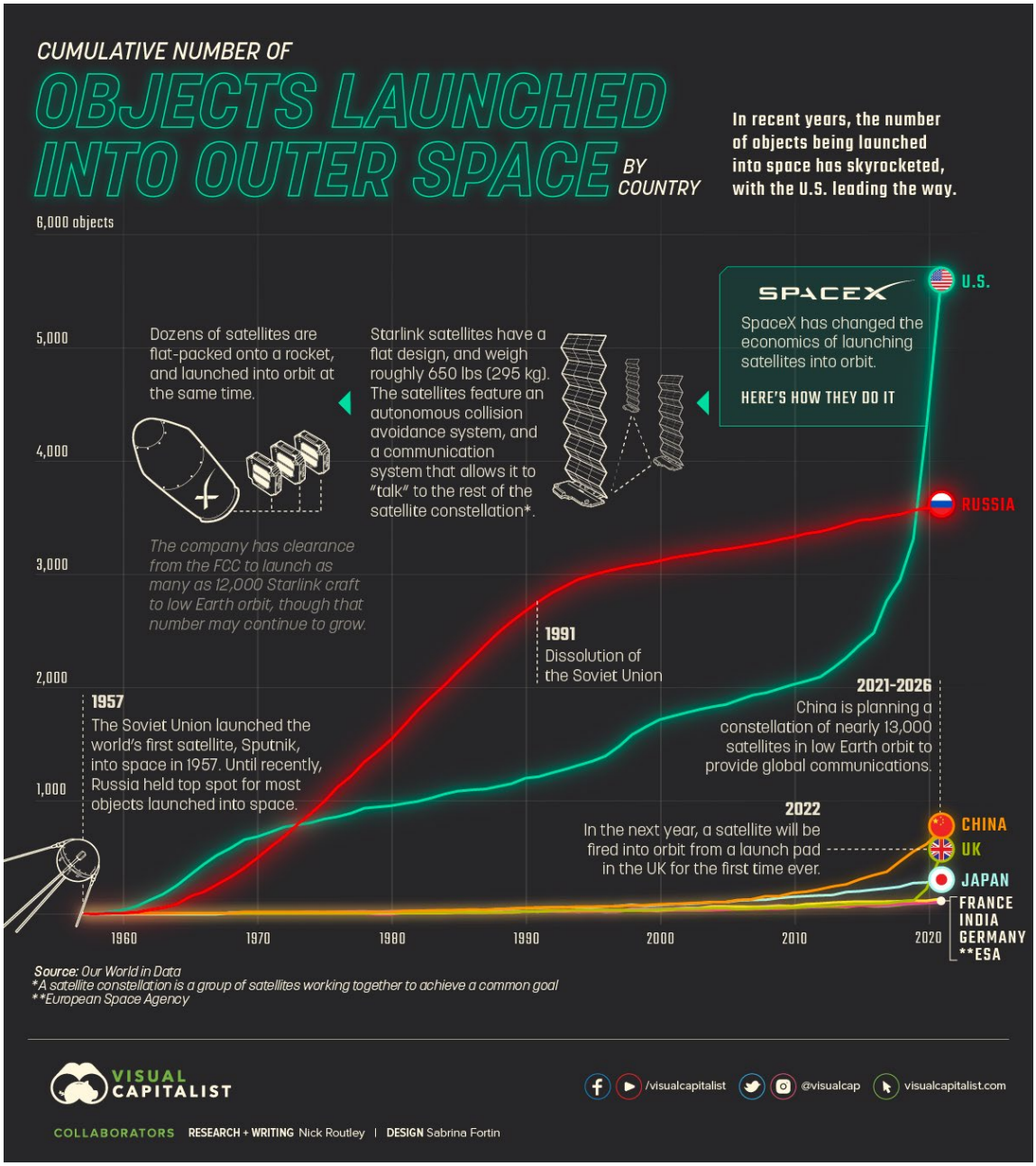
Relevant Media



1 Chart: The Countries with the Most Satellites in Space | Statista



2 Infographic: The Countries Capable of Launching Space Rockets 2022



[3 Visualized: Which Countries are Dominating Space?]

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