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Geopolitical conflict in space (USA and China)

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Abstract

This study examines the geopolitical and legal dimensions of the U.S.-China rivalry in space, highlighting the increasing militarization of outer space and its implications for global stability. As tensions rise among major powers—including the U.S., China, and Russia—issues such as resource competition, nuclear deterrence, and the effectiveness of existing international treaties like the Outer Space Treaty come to the forefront. Further, the study argues that while geopolitics reveals power dynamics, it should not justify excessive militarization. Reiterating the importance of robust international cooperation and legal frameworks, this article advocates for integrating diplomatic, economic, and social factors into conflict resolution strategies to ensure a peaceful future in space exploration.

Keywords : Space militarization, U.S.-China rivalry, Outer Space Treaty, Global governance.

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صراع الفضاء الجيوبوليتيكي (الولايات المتحدة الأميركية والصين)

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المُلخّص

يُحلّل هذا البحث الأبعاد الجيوسياسيّة والقانونيّة للتّنافس المتصاعد على الفضاء الخارجيّ بين الولايات المتّحدة الأميركيّة وجمهوريّة الصّين الشعبيّة مع التّركيز على ظاهرة عسكرة الفضاء وانعكاساتها على الأمن والاستقرار العالميين. ومع احتدام التوتر بين القوى الدوليّة الكبرى، بما فيها الولايات المتّحدة والصّين وروسيا، في ظلّ صراع المصالح حول الموارد الفضائيّة والتوازنات النوويّة، تُناقش الدراسة إشكاليّة مدى كفاية الإطار القانونيّ الدوليّ الحاليّ، لا سيّما معاهدة الفضاء الخارجيّ. وعليه، يخلص البحث إلى أنّ الرؤية الجيوسياسيّة، على الرّغم من أهميّتها في فهم ديناميّات القوّة، يجب ألا تكون مبرّراً لعسكرة الفضاء. وبدلاً من ذلك، يؤكد البحث على ضرورة إرساء تعاون دوليّ فعّال يقوم على قواعد قانونيّة راسخة، ويشمل الأبعاد الدبلوماسيّة، والاقتصاديّة، والاجتماعيّة، لضمان مستقبل سلميّ ومستدام لاستكشاف الفضاء.

الكلمات المفتاحيّة: عسكرة الفضاء الخارجيّ، التنافس الجيوسياسيّ الأميركيّ الصينيّ، معاهدة الفضاء الخارجيّ، الحوكمة العالميّة.

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Introduction

As global tensions rise, the specter of a third world war becomes increasingly plausible. Notably, a 2025 analysis by Thierry de Montbrial underscores that current conflicts, including the war in Ukraine, which has reignited Cold War tensions, raise the risk of direct confrontation between Russia and NATO. Similarly, the Israeli-Palestinian conflict has escalated into regional wars involving multiple actors, potentially leading to proxy conflicts. Tensions between nuclear powers Pakistan and India threaten stability in South Asia, especially in relation to China's Belt and Road Initiative. Concurrently, China's ambitions regarding Taiwan intensify U.S.-China tensions, while competition for energy and mineral resources, particularly in the Arctic, further exacerbates global conflicts. Lastly, the militarization of space is becoming a new battleground among major powers, posing serious threats to global stability. These scenarios are compounded by the competition for resources and advancements in technology, creating a volatile mix that demands urgent attention.

Recent decades have seen a shift in how global issues, particularly security and nuclear disarmament, are addressed. While states traditionally managed these concerns, the emergence of civil society since the 1970s has highlighted the need for broader engagement, particularly as issues like climate change and digital technology now impact daily life. The United Nations, despite its essential role, faces paralysis due to great power tensions, limiting international cooperation.

The militarization of space—a frontier once deemed a realm for scientific exploration—now emerges as a critical battleground where major powers vie for dominance. This article posits that the interdependence of global economies, coupled with advancements in military technology and conflicting geopolitical ambitions, creates a precarious environment ripe for conflict. Specifically, the increasing militarization of space poses a significant threat to international peace and security. To address this looming crisis, we must advocate for robust international cooperation and the revitalization of existing legal frameworks governing outer space activities.

The foundations of international space law were laid in the mid-20th century, culminating in pivotal treaties such as the 1967 Outer Space Treaty, which established key principles like the non-appropriation of celestial bodies and the prohibition of weapons of mass de-

struction in space. Despite these legal frameworks, the rapid evolution of military technologies—including anti-satellite capabilities and potential space-based nuclear weapons—has outpaced the regulatory mechanisms intended to govern such activities.

This research aims to explore the multifaceted risks of a potential third world war, particularly through the lens of space militarization among major powers, Russia and the United States. This leads us to the following problematic: Does geopolitics provide a challenge to public international law, particularly the effectiveness of treaties such as the Outer Space Treaty? In other words, can the geopolitical behavior of Russia and the United States undermine the effectiveness of the Outer Space Treaty?

To this end, our article is structured into three chapters:

Chapter One: Geopolitical Analysis of Conflicts vs. Geo-Economic Analysis Despite the Rise of Geo-Economic Conflict Analysis Adopted by Trumpism (U.S. President Donald Trump)

Chapter Two: Public International Law and the Outer Space Treaty.

Chapter Three: The Peak of World War III? A Geopolitical Space War.

Chapter One: Geopolitical Analysis of Conflicts Remains Relevant Despite the Rise of Geo-Economic Conflict Analysis Adopted by Trumpism (U.S. President Donald Trump)

Between Russia's geopolitical framing—based on historical arguments dating back to the era of Empress Catherine II the Great, used by Russia to justify its war against Ukraine (*Sputnik News*, 2018)—tensions in the Taiwan Strait, wars in the Middle East (including Israeli Prime Minister Benjamin Netanyahu's geopolitical vision of Greater Israel), and the resurgence of Donald Trump (and his geo-economic vision for managing interstate power dynamics) (Mearsheimer, 2019), public interest in geopolitics has never been higher. Indeed, even the term itself is debated (Lacoste, 1993), but in essence, it refers to the analysis of international power relations.

Through our academic experience, we have observed that it is necessary to combine two forms of conflict analysis to understand the full scope of a state's decisions regarding war or peace; both are essential to any forward-looking international analysis. This involves:

a. An analysis of international relations through three levels (Waltz, 1979),

b. An analysis of the impact of geopolitical representations upon which states base their political or military decisions (Lacoste, 1993).

I. **Analyzing International Relations Through Three Levels**

Prior to going further, it is crucial to review the primary analytical approaches that have been applied to international relations since 1949 (Baylis et al., 2019). Here are some of the principal chronological forms of analysis:

a. Realism (1945–1960s): Focuses on state power, national security, and national interests. Realist theorists such as Hans Morgenthau and Henry Kissinger view international relations as a struggle for power (Kissinger, 1957).

b. Idealism/Liberalism (1945–1960s): In reaction to realism, idealism emphasizes international cooperation, international organizations, and moral values. Liberal theorists like Immanuel Kant and Woodrow Wilson advocate for cooperation and peace (Wilson, 1918).

c. Behavioralism (1950s–1960s): Focuses on the scientific study of international actors' behaviors using empirical data (Singer, 1961).

d. Game Theory (1950s–1960s): Applies mathematical modeling to strategic interactions (Schelling, 1960).

e. Complex Interdependence (1970s): Emphasizes growing economic and social ties be-

tween states (Keohane & Nye, 1977).

f. Neorealism (1970s–1980s): Highlights the anarchic structure of the international system (Waltz, 1979).

g. Constructivism (1980s–1990s): Stresses ideas, norms, and identities shaping international relations (Wendt, 1999).

h. Critical Theories (1990s–2000s): Focus on power relations and global inequalities (Linklater, 1998).

i. Post-Positivist Approaches (2000s–present): Include post-structuralist and post-modern critiques (Foucault, 1969).

j. Geopolitical Approach (Yves Lacoste's School): Focuses on defining possible conflict, peace, or status quo scenarios between states based on geopolitical reasoning (Lacoste, 1993).

These approaches are not mutually exclusive and are often combined in contemporary international relations research (Baylis et al., 2019).

That said, when we seek to analyze a state's political behavior, we should not expect our analysis to be accurate if we limit ourselves to a single analytical framework.

For example, when we attempt to analyze or predict the political behavior of Iran, should we begin our analysis with the nature of Iran's political system? Or with the personality of the person holding the highest authority in Iran? Or with the nature of the international system to which Iran is subject? Or with the nature of Iranian society itself?

This principle applies not only to Iran, but to all countries when analyzing their political behavior. If we choose only one of these elements in our analytical process, our analysis will be insufficient, because all of these elements must be taken into account to arrive at a comprehensive political analysis.

When analyzing state behavior, relying on a single analytical lens produces incomplete results. Whether examining Iran or any other state, a full analysis must incorporate:

a.The state's political system (Almond et al., 2008),

b.The personality and ideology of its key decision-makers (Hermann, 2001),

c.The international system's structure and constraints (Waltz, 1979).

These comprise three analytical levels (Singer, 1961):

a.Level One: The Individual,

b.Level Two: The State System,

c.Level Three: The International System.

These are the three levels from which we analyze the political behavior of states or examine a conflict by studying its origins. Although these levels complement each other and are generally of equal importance, the third level is the most significant. This is because the absence of a higher authority capable of exerting real pressure to prevent violent confrontations between state or non-state actors leaves the door open to the use of force—something we will briefly discuss at that level.

A. **Level One: The Individual**

Let us first explain why we use the term "individual" rather than "leader" or "president." The reason is that the decision-maker is not necessarily the official head of state. Many countries are not actually governed by their official leaders but by individuals close to those leaders—figures who wield significant influence and sometimes even dominate the decision-making process (Hermann, 2001). The leader may simply be a figurehead, as was the case with Adly Mansour when he served as president of Egypt (Kassem, 2014), or may be too weak to oppose the instructions of powerful actors behind the scenes (Levitsky & Way, 2010).

Therefore, the term "individual" is more precise than "leader" or "president," since the leader is not necessarily the real decision-maker. For the same reason, the term "decision-maker" can also be misleading.

Having clarified this, we return to the individual as a level of analysis and note that the personality of the decision-maker, as well as the ideology they adopt, helps predict the political behavior of the state (Hermann, 2001; Rosen, 1974).

For example, when analyzing the personality of U.S. President Bill Clinton, one would not expect the United States to initiate wars against its adversaries. Clinton's personality was not hostile; he also belonged to the liberal school of thought, which does not favor war as a means of resolving disputes (Clinton, 2004; Nye, 2015). On the other hand, when analyzing George W. Bush, we observe the opposite: his personality leaned toward hostility, influenced by religious convictions and economic factors—a pattern considered by researchers analyzing U.S. political behavior (Renshon, 2004; George & George, 1956).

Many researchers attribute the causes of conflicts between states to the nature of the individual, though they differ philosophically in their explanations. Some argue that human nature itself inclines toward evil and conflict (Hobbes, 1651). Others trace aggressive ten-

dencies to psychological factors shaped by upbringing, drawing upon theories such as:

a. Freud's theory of life and death drives (Freud, 1930),

b. John Dollard's frustration-aggression hypothesis (Dollard et al., 1939),

c. Konrad Lorenz's aggression instinct theory (Lorenz, 1966).

Therefore, understanding both the personality of the decision-maker and the ideologies they embrace significantly aids in identifying the likely orientation of the state's political behavior (Hermann, 2001).

But is understanding the decision-maker's personality sufficient? No. We must also understand:

a. The nature of the state's political system (Almond et al., 2008),

b. The nature of the international system in which the state operates (Waltz, 1979).

B. **Level Two: The State System**

The political system in a state is considered one of the key levels of analysis in international relations (Waltz, 1979; Almond et al., 2008). Sometimes, we observe that a head of state may lean toward certain political behaviors, yet the political system does not allow these tendencies to materialize. A president may have aggressive or expansionist inclinations, but may be unable to translate these tendencies into action because the political system either fragments power or limits executive authority (Lijphart, 1999). The leader may hold formal authority without having real decision-making power, depending on the constitutional framework and power-sharing mechanisms within the state (Levitsky & Way, 2010).

For example, the President of Israel may advocate for a two-state solution with Palestine, but this position is largely symbolic in political terms because the Israeli president holds no executive authority and fulfills primarily ceremonial functions (Dowty, 2017). This results from Israel's parliamentary system, unlike the presidential system of the United States (Hazan, 1999).

In contrast, while the Israeli Prime Minister may adopt specific policies or positions, those do not constitute final decisions without the approval of the Knesset, which functions as the national legislature, imposing parliamentary oversight and constraint (Dowty, 2017).

A similar situation exists in Iran, where public statements from successive Iranian presidents often vary—one may escalate tensions, while another de-escalates them. However, the critical question is: does the Iranian president hold real authority?

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According to Iran's Constitution, executive power is subordinate to the Supreme Leader, who holds ultimate authority over foreign policy, military decisions, and strategic governance (Keddie, 2006). The Iranian president lacks the authority to declare war or negotiate peace independently, as these decisions fall under the jurisdiction of the Supreme Leader and are subject to the Shura Council and the Expediency Discernment Council (Brumberg, 2001).

Therefore, analysts should not base their understanding of Iranian politics solely on statements from its presidents but should contextualize those statements within the framework of Iran's power structure and ideological leadership (Keddie, 2006; Brumberg, 2001).

In conclusion, understanding the political systems of countries is essential to distinguish between real power and formal authority. This distinction allows for more accurate political analysis based on the true centers of decision-making (Almond et al., 2008; Levitsky & Way, 2010).

C. **Level Three: The International System**

The international system, whether unipolar, bipolar, or multipolar, shapes state behavior through:

a. System boundaries (Waltz, 1979),

b. Power distribution and polarity (Mearsheimer, 2001).

Since 1991, the post-Cold War unipolar system placed the U.S. as the sole hegemon (Krauthammer, 1990). However, the current multipolar system, involving the EU, Russia, China, and the U.S., complicates power relations (Ikenberry, 2011).

While the U.S. seeks to retain hegemony (Nye, 2015), other power such as China and Russia aim to establish a multipolar order in which no single state dominates (Stuenkel, 2016). Understanding the nature of the international system remains essential for geopolitical analysis (Waltz, 1979; Lacoste, 1993).

II. **The Limits of the System:**

The uncertainty regarding the limits of this system is due to the duality of diplomatic and military engagement. Political entities (states) have a hierarchy determined by the forces each can mobilize (Waltz, 1979).

A. The Distribution of Power:

The distribution of power is one of the factors that determines the grouping of States. Two states that have no reason to enter into conflict may become hostile because of the rigidity

of their positions. In geopolitical terms, this is a contradiction between geopolitical representations concerning the notion of global governance, which we will study further on (Mearsheimer, 2001).

The unipolar international system experienced this from the collapse of the Soviet Union in 1991 until the beginning of the twenty-first century. Thus, the United States became the sole leader of the world, and the international system was characterized by unipolarity, in which the United States was the single pole. The pole is politically referred to as a "hegemonic State." Politicians define a hegemonic State as the strongest state in the international system, one that threatens other States without any other State being able to threaten it (Gilpin, 1981).

Consequently, the United States was a "superpower" throughout the Cold War period. But it was not a "hegemonic" state because it was not a single pole; the Soviet Union shared this status (Kissinger, 1994).

Moreover, the international system can be subject to multiple polarities, as was the case in the mid-19th century, and as is the case today. The international system currently does not have a dominant state forming a single pole, as was the case with the United States before 2008, but rather there are several poles. The European Union is a pole, Russia is a pole, China is a pole, the United States is a pole, etc. (Ikenberry, 2011).

Certainly, there is competition between one State – the United States – which seeks to maintain its hegemony, convinced that it is directly threatened by China, and other influential states that do not seek hegemony for geopolitical and strategic reasons, but rather aim to establish a new world order ~~where no~~ in which no state holds hegemony (Zakaria, 2008).

In any case, we wish to conclude that understanding the nature of the international system contributes to the development of geopolitical analysis and constitutes an indispensable element (Bull, 1977). Now, what is happening today between China, Russia, and the United States is a competition that must be analyzed in terms of what each of these States represents in relation to the structure of the international system.

a. **Analysis of the Impact of Geopolitical Representations on the Political or Military Decisions of States**

There are, of course, various geopolitical schools of thought that we will outline here with the aim of using them as tools of geopolitical reasoning to demonstrate their impact on the decisions of a state, particularly Russia and the United States. The goal of this section is

to demonstrate the importance of studying a geopolitical representation, as it allows us to understand why a given state or local/regional actor has made a certain decision, and how it might react to aggression or within the framework of an agreement. Therefore, it helps us understand how the United States and Russia perceive the current international system, which is in the process of being restructured (see Section 3) (Lacoste, 2006; Flint, 2016).

Before answering this question, it is necessary to define what a geopolitical representation is: a term coined by Professor Yves Lacoste, which suggests that every decision is exclusively based on a geopolitical representation (Lacoste, 2006).

The French Geopolitical School of Yves Lacoste studies the political perceptions of each actor on the international, regional, and local stage. It offers a geographical reading (as it relies on maps), unlike political geography, which seeks to explain geographical phenomena politically (Lacoste, 2006). This requires a multidisciplinary approach, drawing from history, philosophy, political science, sociology, psychology, and religion (Gourevitch, 1978; Agnew, 1998).

According to Yves Lacoste, a geopolitical event must be defined by the different and contradictory geopolitical perceptions or visions it generates, which can lead to one of three scenarios: conflict, peace, or the status quo (Lacoste, 2006). Every geopolitical vision consists of ideas based on various arguments to validate them. By taking into account all visions of different geopolitical actors without judging their validity, the objective is to determine the degree of disagreement and understand its evolution.

According to Lacoste, geopolitics is the study of power struggles and influence in a given region. To explain a conflict or the decisions of a state like Russia, one must detach from preconceived ideas inherited from education, culture, or history. Russian decisions, and American reactions to them, should not be explained solely through international law or the paranoia of a single individual but rather through the study of geopolitics and the analysis of interpretative frameworks (Lacoste, 2006).

1. **Mackinder's Heartland Theory**

Concerns about Russian expansion were articulated as early as 1904 by British geographer Halford Mackinder in his *Heartland Theory*. He proposed that whoever controls Eastern Europe controls the Heartland, whoever controls the Heartland controls the World-Island, and whoever controls the World-Island controls the world (Mackinder, 1904). Mackinder identified the strategic significance of Eurasia as the pivot of global power (Mackinder, 1919).

Mackinder's theory influenced British and later Western strategies aimed at preventing any one power (specifically Russia) from dominating Eurasia. The creation of buffer states after World War I, such as the Baltic states and Poland, was a practical application of this strategic thinking (Dodds, 2007).

2. **Spykman's Rimland Theory: The American Geopolitical Model**

American geopolitician Nicholas Spykman revisited Mackinder's theory during the Second World War. He argued that control of the Rimland (the coastal edges of Eurasia) was the key to global dominance, rather than the Heartland itself (Spykman, 1944). Spykman summarized his theory as: "Who controls the Rimland rules Eurasia; who rules Eurasia controls the destinies of the world."

This theory became foundational for U.S. Cold War strategy, shaping the containment doctrine aimed at encircling the Soviet Union through alliances and strategic positioning in Europe, the Middle East, and Asia (Gaddis, 2005).

After the Cold War, NATO expansion and U.S. influence in former Soviet regions reflected this geopolitical logic (Brzezinski, 1997). Brzezinski's work, *The Grand Chessboard*, emphasized the strategic importance of Eurasia as the key battleground for global influence.

The conflict in Ukraine is viewed by many analysts as a contemporary example of the Mackinder-Spykman framework, with both Russia and Western powers seeking to secure geopolitical advantages in the region (Brzezinski, 1997; Mearsheimer, 2014).

The election of Donald Trump, with his transactional foreign policy and focus on economic supremacy rather than territorial or strategic alliances, suggested a potential deviation from classical geopolitical doctrines (Walt, 2018). Nevertheless, traditional geopolitics continues to frame the strategic competition between the United States and Russia.

b. **Global Governance – A Geopolitical Tool in Shaping a New World System**

Global governance can be defined as the exercise of power beyond national borders, as well as the rules and standards agreed upon beyond the nation-state, justified by common goods or transnational issues. Various non-state actors may participate in global governance frameworks (Weiss, 2013).

Since the 1990s, the concept of global governance has been widely used to describe the revitalization and expansion of international institutions and processes that emerged after World War II, incorporating new actors and sectors (Rosenau, 1995). The concept has evolved over time: for decades, each state sought to maintain its gains within a certain

equilibrium. By 2022, states were seeking greater influence over others to provoke systemic changes (Falk, 2014).

Global governance constitutes the core of the entire international system. Indeed, while various non-state actors are influential in global governance, the state remains the primary actor. President Donald Trump demonstrated this reality on multiple occasions during his first presidential term when he withdrew from the Paris Climate Agreement, the World Health Organization (WHO), and placed financial burdens on NATO members (Patrick, 2021).

Thus, any state power seeking to exercise influence beyond its national borders must assert its superiority over the key domains that constitute global governance. These domains can be grouped into five pillars:

1. Environment and energy/mineral resources;
2. Economy and finance;
3. International politics and diplomacy;
4. Security and military defense;
5. Development of knowledge and sciences (Held & McGrew, 2002).

Currently, only the United States and China compete across all five pillars, explaining why China represents the primary threat to U.S. dominance. Russia competes with the U.S. in four pillars (excluding scientific and technological development, where it lags behind the U.S. and China) (Bremmer, 2021).

The U.S. strategically shaped the nucleus of the international system during the 20th century, as illustrated by:

1. The Bretton Woods Agreements, which regulated the exchange system and established institutions like the World Bank and the International Monetary Fund (IMF).
2. The 1947 GATT agreements, followed by the creation of the World Trade Organization (WTO) in 1995 (Helleiner, 2014).
3. The 1997 Kyoto Protocol aimed at reducing greenhouse gas emissions.
4. The formation of country alliances such as the G7 and G20.
5. The proliferation of over 250 intergovernmental organizations and 8,000 international NGOs (Weiss, 2013).

Ecological movements triggered the first International Conference on the Environment in

1972, under the slogan "One Earth" (United Nations, 1972).

The economic and financial globalization of the 1980s generated challenges such as the explosion of international trade, increasing foreign investments, the free movement of capital, and financial innovations (Held et al., 1999). State-based power divisions were dissolved into international organizations, requiring new forms of organization.

The concept of "humanitarian intervention" evolved in the 1990s, as the UN was pressured by NGOs and media to intervene militarily in internal conflicts such as those in Syria, Yugoslavia, and Somalia (Weiss, 2007). The rise of the individual as a subject of international politics, along with the dominance of global organizations, further shaped this structure, driven largely by U.S. think tanks aligned with the Pentagon and various U.S. administrations (Bacevich, 2020).

Legally, the pillars of global governance remain:

1. Fundamental principles of international law: sovereign equality of states, prohibition of force, peaceful dispute resolution, human rights protection, and the UN Charter (United Nations, 1945).
2. Solidarity and functional cooperation.
3. Blurred lines between domestic and international affairs (Falk, 2014).

Global governance thus operates on both global and regional levels (e.g., NATO, EU security organizations), often masking underlying rivalries and disagreements among actors.

Now we will move on to public international law and its impact.

Chapter 2: Public international law and the Outer space treaty

Public international law regulates the interactions between independent states, with legal obligations arising from state consent, either explicit or general. Unlike domestic legal systems that have established governing bodies, the international realm lacks a formal law-making authority. Therefore, international law is formed through the actions of states and derives from various sources, with consensus being crucial for its legitimacy.

Article 38 of the International Court of Justice (ICJ) Statute outlines the primary sources of international law:

A. **International conventions:** Treaties that are recognized by the states involved.

B. **International custom:** General practices accepted as law, reflecting a sense of legal obligation.

C. **General principles of law:** Accepted by civilized nations.

D. **Judicial decisions and scholarly teachings:** Utilized as supplementary means for establishing legal rules.

To establish a rule of international law, it must originate from one or more of these identified sources, all of which carry equal authority. This equivalence can lead to conflicting rules and the possibility of a single rule being derived from multiple sources. The ICJ addressed the relationship between customary law and treaty law in the Military and Paramilitary Activities in and Against Nicaragua" case, affirming that customary international law does not lose its independent status upon incorporation into treaties (International Court of Justice, 1986).

According to article 1, paragraph (a) of the Vienna Convention on the Law of Treaties that governs international law applicable to treaties a treaty is defined as:" "treaty" means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation",

Treaties are a key source of public international law, obligating state parties to fulfill their commitments in good faith under the principle of *pacta sunt servanda* (which means "agreements must be kept" (ECIJA, 2025)), a fundamental principle of public international law (Britannica, 2024 ; ECIJA, 2025) . This principle is enshrined in Article 26 of the Vienna Convention on the Law of Treaties (United Nations, 1969), which states: ~~that~~ "Every treaty in force is binding upon the parties to it and must be performed by them in

good faith". A failure to meet these obligations results in international responsibility for the state involved (UN, 1969).

I. **Space law treaties on the international and national level**

Now we will discuss space law treaties on the international and national level.

A. **Space law treaties on the international level**

Space law emerged in 1957 with humanity's entry into outer space. However, legal discussions concerning space began much earlier, with scholarly publications appearing as early as the 1920s. Mandl (1932), recognized as the "father of space law," published the first comprehensive legal text on this topic. The advent of space activities led to the formal development of space law, particularly following the United Nations General Assembly's establishment of the Ad Hoc Committee on the Peaceful Uses of Outer Space (COPUOS) in 1958 (Jasentuliyana, 1999).

COPUOS contributed to drafting UN General Assembly Resolution 1721 in 1961, which emphasized principles such as freedom of exploration, non-appropriation of outer space, and the application of international law to outer space activities (United Nations, 1961). This resolution was followed by Resolution 1962 in 1963, which articulated the "Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space" (United Nations, 1963). While non-binding, these resolutions laid the foundation for the modern legal framework governing outer space (Hurwitz, 1986). Analogies with maritime, aviation, and Antarctic laws also influenced early space law.

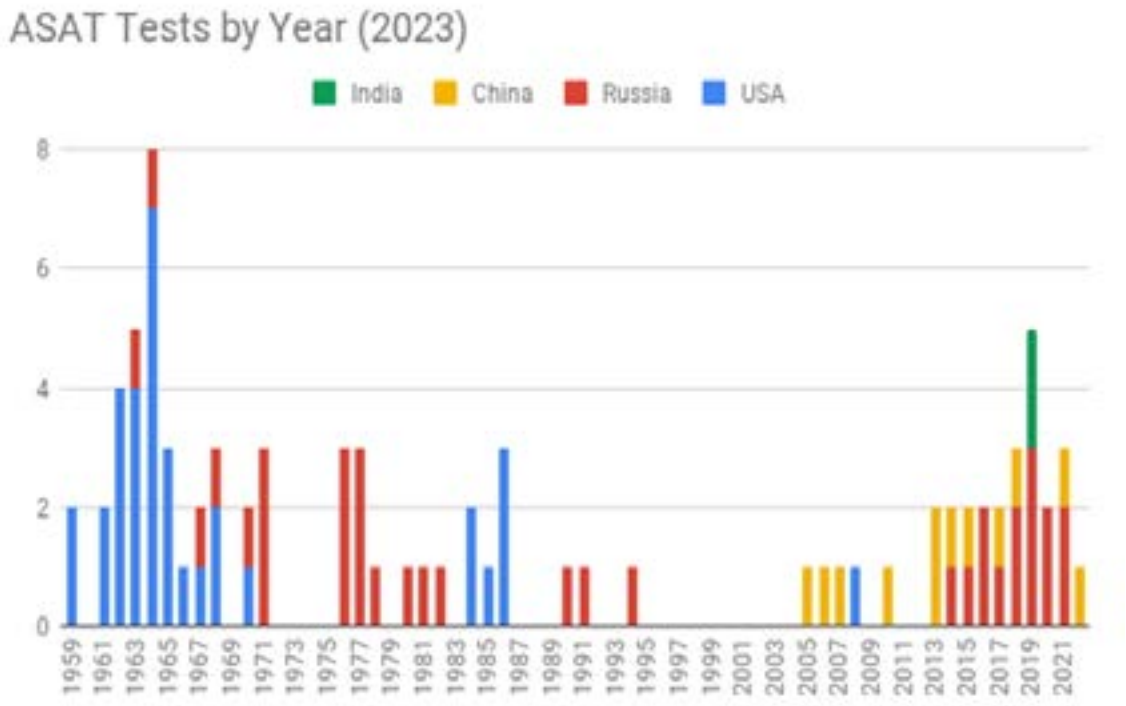

Figure 1: The use of direct ascent anti-satellite weapons between 1958 and 2021 by country. (Max Polyakov, 2021)

B. **The Outer Space Treaty**

The 1967 Outer Space Treaty, the first and most significant multilateral agreement produced by COPUOS, forms the core of international space law. Entering into force on October 10, 1967, the treaty has been widely adopted by states globally (United Nations Office for Outer Space Affairs, 2017). Often referred to as the "Constitution of Outer Space," the Treaty affirms the common interest of all humanity in the peaceful exploration and use of space (Groove, 1992). Articles 1–3 of the Outer space treaty outline essential legal principles:

a. Universal Benefit and Access: All nations, regardless of development status, share a collective interest in space exploration (United Nations, 1967).

b. Freedom of Use and Exploration: Although freedom of exploration exists, it is constrained by general international law and the Treaty itself (United Nations, 1967).

c. Non-Appropriation: No nation may claim sovereignty over outer space or celestial bod-

ies. This principle faced challenges in 1976 when eight equatorial nations signed the Bogota Declaration, claiming geosynchronous orbits above their territories. However, no state has recognized these claims.

d. Application of International Law: Article 3 asserts the relevance of general international law, including the UN Charter, in space activities.

Article 4 addresses military activities, explicitly prohibiting the placement of nuclear or other weapons of mass destruction in space. Debate persists over the treaty's omission of the moon in certain clauses, though legal consensus generally interprets "celestial bodies" as including the moon (United Nations, 1967).

The treaty differentiates between the prohibition of weapons of mass destruction and conventional military uses in outer space. Two interpretive schools exist: one argues that the phrase "exclusively for peaceful purposes" applies solely to celestial bodies (Cheng, 1997); the other posits that the Treaty as a whole mandates peaceful usage across all of space (Morgan, 1994).

Further provisions include:

a. The Rescue and Return Agreement (United Nations, 1967).

b. International Responsibility: States are liable for national and non-governmental space activities (Green, 2000).

c. Jurisdiction and Control: Launching states retain jurisdiction over their objects and personnel in space (Bin Cheng, 1997).

d. Consultation Obligations: Article 9 mandates consultations to prevent harmful interference with other states' activities.

The Treaty's ambiguity, particularly concerning "peaceful purposes," continues to spark legal debate (Jasani, 1991). As a foundational legal instrument, the Outer Space Treaty remains critical, but evolving space activities and military interests may challenge its applicability.

C. **Moon Treaty**

The Moon Agreement, finalized in 1979, was the last multilateral space treaty formulated under the auspices of COPUOS and ratified by the United Nations General Assembly. Despite entering into force in 1984 after receiving five ratifications, by 2005, it had been ratified by only 11 states, none of which were significant spacefaring nations (United Nations,

1979). Due to this limited uptake, many legal scholars argue that the Moon Treaty does not form a core part of the conventional framework of international space law (Groove, 1992).

Much like the Outer Space Treaty, the Moon Agreement reaffirms key principles: that general international law applies to all lunar activities (United Nations, 1979, art. 2), that lunar exploration must serve the interests of all countries (United Nations, 1979, art. 4), and that the Moon cannot be subject to national appropriation. Furthermore, the agreement places responsibility on states for all national activities conducted on the Moon and grants states jurisdiction over their personnel, equipment, and installations on the lunar surface (United Nations, 1979, art. 12).

The arms control provisions in Articles 3(1), 3(3), and 3(4) largely echo Article IV of the Outer Space Treaty, providing further clarification regarding demilitarization of the Moon (United Nations, 1979). Article 3(2) effectively reaffirms Article 2(4) of the UN Charter, prohibiting the threat or use of force against the territorial integrity or political independence of any state (United Nations, 1945).

The most contentious aspect of the Moon Agreement is its treatment of lunar resources. Article 11(1) designates the Moon and its natural resources as the "common heritage of mankind" (United Nations, 1979, art. 11). This principle, though similar to res communis, differs by subjecting resource allocation to collective international management rather than permitting unrestricted exploitation (Kindred, 2000). While many developing states welcomed this provision, space-faring nations like the United States declined to ratify the treaty, citing uncertainties surrounding commercial exploitation as a significant barrier (Ramey, 1984). Consequently, the treaty's limited adoption has weakened its influence in regulating military uses of outer space (Cheng, 1997).

D. **Other International Instruments**

Beyond the five COPUOS treaties, several international agreements influence military activities in outer space.

a. Limited Test Ban Treaty (LTBT)

Adopted in 1963, the Limited Test Ban Treaty (LTBT) was negotiated between the U.S., the Soviet Union, and the U.K. as a step toward comprehensive disarmament (United Nations, 1963). Ratified by over 100 states, it prohibits nuclear tests in the atmosphere, outer space, and underwater but permits underground testing unless such tests cause cross-border radioactive contamination (United Nations, 1963, art. 1). By prohibiting "any other nuclear explosion," the treaty sought to prevent peaceful nuclear detonations due to their

indistinguishability from weapons testing (Petras, 2003). The LTBT thus marked the first treaty to impose restrictions on state conduct in outer space.

b. Anti-Ballistic Missile Treaty (ABM Treaty)

The 1972 Anti-Ballistic Missile Treaty, a bilateral agreement between the U.S. and USSR, was the first to formally recognize "National Technical Means" (NTMs) for monitoring compliance, referring to state-owned surveillance systems including reconnaissance satellites (United States & USSR, 1972). The treaty acknowledged the legality of such space-based monitoring technologies and prohibited interference with them (Rosas, 1983). However, the U.S. withdrawal from the ABM Treaty in 2002 effectively terminated these provisions (Rusten, 2021).

The 1992 Treaty on Conventional Armed Forces in Europe (CFE Treaty) revived the non-interference principle, expanding it to "Multinational Technical Means" (MTMs), thereby protecting cooperative monitoring systems (United Nations, 1990, art. 15).

c. Environmental Modification Convention (ENMOD)

Adopted in 1977, the ENMOD Convention prohibits military or hostile environmental modification techniques intended to cause widespread, long-lasting, or severe effects, including in outer space (United Nations, 1977, arts. 1–2). Environmental modification is defined as any deliberate alteration of natural processes, encompassing outer space as part of Earth's environment. Although unintentional effects like space debris are not explicitly covered, general international law, as affirmed by the International Court of Justice, obligates states to consider environmental impacts even during armed conflict (ICJ, 1996). This may extend to space operations with environmental consequences (United Nations, 1992).

E. **Space and the United Nations**

The application of general principles of international law, including the UN Charter, to outer space remains contested. Some scholars argue that the Outer Space Treaty (1967) fails to explicitly define which general principles apply, leading to claims that fundamental principles such as the right to self-defense should not automatically extend to outer space (Outer Space Treaty, 1967, art. 2). Conversely, leading experts emphasize that Article III of the Outer Space Treaty clearly references the UN Charter, suggesting that general principles of international law (lex generalis), including customary international law, apply beyond Earth's atmosphere (Petras, 2002).

Fawcett (1968) maintained that neither the UN Charter nor customary law imposes geo-

graphical limitations on self-defense rights. Lay and Taubenfeld (1970) supported this, affirming that both treaty law and customary practice extend to activities in space, explicitly encompassing the right to self-defense. Lowder (1999) noted that international law historically lacks spatial limits, reinforcing the argument that the Charter's provisions apply in outer space.

UN General Assembly resolutions also support this perspective. Resolution 1721 (1961) encouraged states to conduct outer space activities consistent with international law and barred celestial appropriation (UNGA, 1961). Resolutions 1884 (1963) and 1962 (1963) further underlined the prohibition against placing weapons of mass destruction in space, suggesting a consensus among major powers on applying international legal norms in space (UNGA, 1963a; UNGA, 1963b).

a. Kinetic and Hypervelocity Weapons as a Military Activities in Space

Article IV of the Outer Space Treaty distinguishes between military activities on celestial bodies and those in outer space itself (Maogoto, 2005). While deploying nuclear or other weapons of mass destruction in space is explicitly forbidden, the treaty does not categorically prohibit all forms of military activity in outer space, provided they do not violate the UN Charter or general international law (Cheng, 1997).

The Treaty permits scientific and peaceful military uses of space technologies, which often serve both civilian and military functions (Hurewitz, 1994). As the Limited Test Ban Treaty (1963) focuses solely on prohibiting nuclear detonations, other weapons, such as conventional or directed-energy systems, are not regulated under its terms (Ramsey, 2000). The treaty also restricts nuclear propulsion in space due to its focus on banning nuclear explosions.

The Anti-Ballistic Missile (ABM) Treaty of 1972 addressed space-based missile defense systems, banning their development and deployment (ABM Treaty, 1972). Article 12 of this treaty formalized the use of National Technical Means (NTMs), implicitly legitimizing space-based surveillance as a component of arms control verification (Merges, 1997). However, antisatellite (ASAT) weapons were not addressed, leading to legal ambiguities given technological overlaps between ABM and ASAT systems (Gottfried, 1983; Pike, 1983).

b. Project Thor: "Rods from God"

The "Rods from God" concept involves deploying tungsten rods from space to deliver kinetic strikes comparable to nuclear blasts without using explosives. The Outer Space

Treaty prohibits nuclear, chemical, and biological weapons in orbit but does not explicitly ban kinetic energy weapons like tungsten rods (New York Times, 2006; Hardesty, 2005). However, given their destructive potential, their legality under the treaty's general prohibition on weapons of mass destruction remains unclear (Vermeer, 2007).

c. Electromagnetic, Laser, and Radiation Weaponry

Indirect methods of military force in space include disabling enemy satellites through electromagnetic or laser systems, without direct physical impact. Reports from the USAF suggest that radio frequency and laser technologies could disable or destroy satellites from space (Bekey, 1995).

Such methods raise legal challenges under existing space law. The Outer Space Treaty prohibits interference with other states' space assets, and attacks via directed-energy weapons could be interpreted as acts of force under Article 51 of the UN Charter, particularly in the absence of prior aggression by the targeted state (Bekey, 1995). The Liability Convention acknowledges the possibility of intentional destruction of space objects, imposing absolute liability for surface damage and fault-based liability for in-space incidents (Liability Convention, 1972). Article 9 mandates consultation before activities likely to cause harmful interference, yet allows states to proceed with operations after consultations even if objections arise (Liability Convention, 1972).

Hurewitz (1994) and Ramsey (2000) argue that the Liability Convention implicitly recognizes that states may engage in destructive acts against space objects under specific conditions.

d. Space Under National Law

From prior analysis, it can be concluded that national laws enabling space mining may contravene the non-appropriation principle of the Outer Space Treaty (OST) unless they incorporate the broader "common heritage of mankind" framework. While international law encourages states to enact domestic legislation to implement treaties, such laws do not alter the state's obligations under international law, as established in Article 27 of the Vienna Convention on the Law of Treaties (Vienna Convention, 1969). Moreover, under the principle of pacta sunt servanda, treaties must be executed in good faith (Vienna Convention, 1969, art. 26). Due diligence obliges states to integrate factual and legal realities into the development of such legislation.

1. United States Space Act

The U.S. Space Resource Exploration and Utilization Act of 2015 grants property rights

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over asteroid resources to entities that extract them, including the right to seek compensation for harmful interference. However, it fails to uphold other core aspects of the common heritage principle, such as equitable benefit-sharing or coordination through international mechanisms (United States, 2015). Although the Act mandates that U.S. commercial entities must comply with international obligations, no effort has been made to establish an international regulatory framework (United States, 2015, section b).

Despite assertions that the Space Act does not violate the OST, its provisions—granting exclusive resource rights under U.S. jurisdiction—imply a form of sovereignty over extracted materials. Such national appropriation of resources effectively violates the OST's Article II, as all space activities are attributable to the state itself (United States, 2015).

The U.S. House Committee report supporting the Act cited past U.S. legal interpretations suggesting that resource exploitation falls within the freedom of use guaranteed by the OST (U.S. Congress, 2015). However, legal scholars and other states have contested this view (U.S. Congress, 2015). The 2003 case involving the U.S. seizure of a moon rock—initially gifted to Honduras—was used to support the Act's framework. Nevertheless, that case concerned Honduran national property and did not establish broader commercial exploitation precedents (United States V. One Lucite Ball, 2003).

Further, the report referenced state practice by NASA, Russia, and Japan in collecting space resources. Yet, those missions were scientific, state-operated, and involved minimal quantities, insufficient to justify broad commercial claims (U.S. Congress, 2015).

Kall Morris Inc (KMI) is another orbital debris research and solution development business that specializes in active debris removal techniques. They are creating a commercially viable device designed to detumble an item, such as an end-of-life client satellite or unprepared trash, and release it into a deorbit altitude(KMI, 2024). Its Laelaps spacecraft will rendezvous with and attach to a debris object before releasing it at a deorbit altitude. Laelaps is outfitted with a mechanical, multi-armed articulated robotic device known as REACCH, which can dock to unprepared space junk. The REACCH tentacles use gecko adhesion to adhere to trash objects and readily release them when retracting (NASA. 2025).

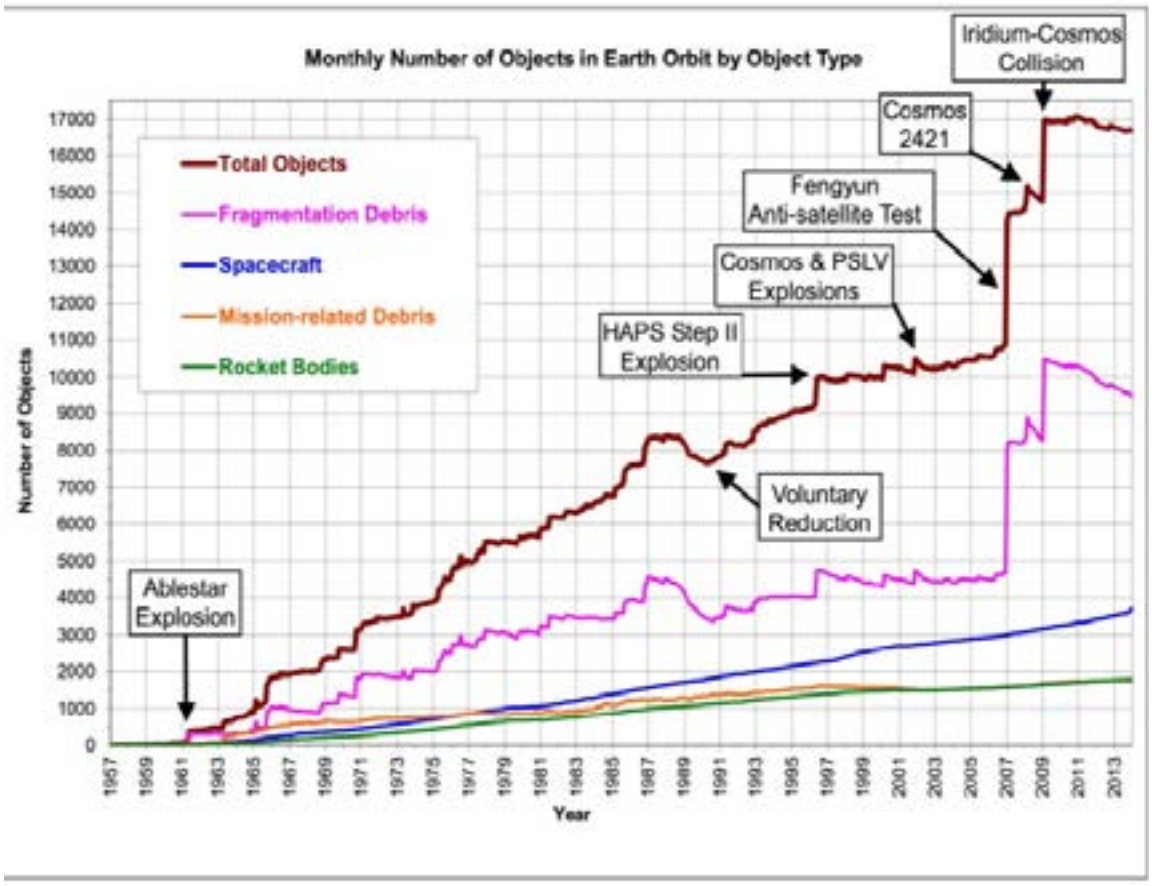

Figure 2: Growth of orbital space object including space debris (NASA Orbital Debris program)

The National Aeronautics and Space Administration (NASA) leads U.S. space exploration with ambitious missions targeting the Moon, Mars, and beyond. NASA's Artemis program aims to return humans to the Moon by 2025, with future plans for Mars exploration (NASA, 2023). In addition to governmental efforts, the commercial space sector plays a crucial role, with companies like SpaceX, Blue Origin, and Boeing innovating in spacecraft development and launching payloads. SpaceX's Falcon rockets and Crew Dragon spacecraft have been particularly significant in resupply missions to the International Space Station (ISS) (SpaceX, 2023).

NASA has successfully landed several rovers on Mars, including Perseverance and Curiosity, to conduct scientific research and search for signs of past life (NASA, 2023). Furthermore, the United States actively collaborates with international partners on projects such as the ISS, promoting joint research and technology development (NASA, 2025).

2. Russian Federation Space Law

Russia's space legislation, first enacted in 1993, emphasizes both private sector development and compliance with international treaties (Law of the Russian Federation, 1993). Notably, Russian law explicitly prohibits adverse environmental changes on the moon and celestial bodies, bans military activities and the deployment of nuclear or weapons of mass destruction (WMDs), and ensures protection of intellectual property rights in space (Law of the Russian Federation, 1993; Russian Federation, 1995).

Russia retains jurisdiction over all registered space objects and their crews, even when stationed on celestial bodies (Law of the Russian Federation, 1993, art. 4). However, ownership of such objects does not confer territorial claims over the surface or subsurface of celestial bodies. This indicates Russia's rejection of private property rights over lunar or planetary territories (Law of the Russian Federation, 1993; Russian Federation, 1996).

3. China space law

China is striving to cement its position as a leading space power by 2025 through several ambitious initiatives spearheaded by the China National Space Administration (CNSA). These include ensuring the operational status of the Tiangong space station for sustained human presence and international research collaboration and expanding lunar exploration via the Chang'e program, potentially involving sample return missions (CNSA, 2025; Jones, 2025). Furthermore, CNSA is investing in diverse satellite technologies, such as Earth observation, telecommunications, and navigation systems, while also focusing on mitigating space debris (Xinhua, 2025). The Tianwen-2 mission is scheduled for 2025 and will conduct an asteroid flyby and sampling (CNSA, 2025). The Shenzhou-20 and Shenzhou-21 crewed spacecraft are also scheduled for launch this year (CNSA, 2025).

China emphasizes global governance in outer space, advocating for a community with a shared future (Li, 2021). As of December 2024, China had signed nearly 200 intergovernmental space cooperation agreements with over 50 countries and international organizations (CNSA, 2025). While promoting peaceful use and adhering to the Outer Space Treaty, China also aims to bolster its comprehensive national power and secure access to space resources (Li, 2021). China opposes the militarization of outer space and advocates for its peaceful use, adhering to international legal frameworks like the Outer Space Treaty (Li, 2021).

4. Australian Regulations

Australia's space legislation holds particular relevance given that the country is among the few states that have ratified the Moon Agreement. Although Australia does not have a distinct legal framework specifically for activities on the Moon or other celestial bodies,

its Space Activities Act 1998 applies to any activities conducted beyond 100 kilometers above sea level, encompassing the Moon and other celestial objects (Space Activities Act, 1998).

The objectives outlined in the Act affirm Australia's commitment to complying with the core obligations of United Nations space treaties, reflecting its adherence to international space law (Space Activities Act, 1998). The structure of the Australian framework bears considerable similarity to U.S. regulations, notably the U.S. Commercial Space Launch Act. Authorization and regulation of private space activities, including those involving celestial bodies, are managed through a licensing system, requiring launch permits and space operation licenses (Australian Space Agency, 2021).

To mitigate risks, private operators must maintain insurance or demonstrate financial capacity to cover potential liabilities. Operators must also comply with national environmental protection standards and uphold public safety and national security measures. Importantly, to restrict military exploitation of outer space, the legislation prohibits transporting nuclear or other weapons of mass destruction (Space Activities Act, 1998).

Unlike U.S. practices in which government and private entities share liability, Australia assigns full liability for damages caused by private space operations to the private entities themselves, as per the Liability Convention. Operators are responsible for compensating third parties and the Australian government in cases of damage arising from their activities. They must secure insurance coverage or demonstrate financial self-insurance capability. Furthermore, the Act mandates accident investigations to reduce future incidents (Australian Government, 2021).

Despite Australia's ratification of the Moon Agreement, its national legislation focuses predominantly on commercial uses of outer space, neglecting critical issues such as environmental protection for celestial bodies, implementation of the Common Heritage of Mankind (CHM) principle, and intellectual property rights (IPR) in space. Australia's failure to establish a specialized legal regime addressing Moon-specific activities illustrates a significant shortcoming in fulfilling its international obligations (United Nations, 1979).

In order to meet and collect space debris orbiting the Moon, the Space Machines Company's orbital transport vehicle will enter lunar orbit in 2027. The Optimus orbital transport vehicle (OTV), designed in Australia, will meet, intercept, and bring hazardous trash back to Earth from lunar orbit. Before returning to Earth, it will transport Australian payloads to lunar orbit for the purpose of testing and developing situational awareness and communications systems for lunar exploration (NAZA, 2025).

Chapter 3: The Peak of World War III: A Geopolitical Space War?

To preserve its dominance over all global governance pillars, the U.S. must neutralize any threatening competitor, particularly China, in line with Trump's "America First" and "Make America Great Again" doctrines, focusing on agro-economics and long-term profitable trade agreements. However, given U.S. pragmatism, it may focus more immediately on the less threatening competitor, Russia, especially given its strategic partnerships with China and Iran (Allison, 2017).

Figure 3: Explosive growth in the commercialization of space (Vicor Corporation, 2025)

I. **Trump's "Golden Dome"**

The corridors of the United Nations have become the stage for a major conflict between the United States and Russia over the 1967 Outer Space Treaty, which prohibits the deployment of nuclear weapons or other weapons of mass destruction in space (United Nations, 1967).

A year ago, the United States and Japan drafted a resolution aimed at reaffirming the Outer Space Treaty, but Russia's veto blocked these efforts. Meanwhile, the Kremlin proposed a bill to permanently ban the deployment of all weapons in space, which also faced opposition from the United States and Europe (United Nations General Assembly, 2025).

This proposal comes amid an increasingly intense space arms race, especially following the rapid development of hypersonic missiles that surpass traditional defense systems (Smith,

2025). Washington justifies its stance as necessary to protect national security, but analysts believe the move could lead to further tensions with China and Russia, particularly given disagreements over the 1967 Outer Space Treaty (Brown, 2025).

Washington recently vetoed a Russian draft resolution calling for a ban on the deployment of weapons in space, drawing international criticism and opening the door to a new phase in the militarization of space (United Nations Security Council, 2025).

In the context of Russia's geopolitical representation, particularly under President Vladimir Putin, it is inconceivable for Russia not to gain international recognition for its power in global governance. Putin's vision for Russia's role in a multipolar international system is inspired by that of Empress Catherine II (Peterson, 2024). In one of his speeches, President Putin referenced this era of Russia's history (Kremlin.ru, 2025).

In line with this vision, Russia has announced a new national space project through Dmitry Bakanov, director of Roscosmos, who revealed the launch date of Russia's new national space project (Russia Today, 2025a).

During his meeting with the Chairwoman of the Federation Council, Valentina Matvienko, Bakanov declared that work to implement Russia's new national space project would begin on January 1, 2026 (Russia Today, 2025a).

In June 2025, Russian President Vladimir Putin approved the new national space project titled "Development of the Space Activities of the Russian Federation," aiming to strengthen Russia's space capabilities, ensure the technological independence of its space industry, and create new markets for promising space technologies and services (Roscosmos, 2025).

As part of this project, Russia plans to launch 1,118 satellites dedicated to communications and Earth observation services (Roscosmos, 2025).

Prior to this announcement, Bakanov revealed that the future Russian orbital space station was being developed using Russian software during a meeting with Russian Prime Minister Mikhail Mishustin (Russia Today, 2025b).

Bakanov explained that companies including Energia, the Khrunichev Center, and the Tsinki Center are involved in this project (Russia Today, 2025b).

In the broader context of geopolitical competition between nuclear powers, U.S. intelligence services suspect that Russia is seeking to develop a space-based nuclear weapon capable of disabling satellites—a claim that has raised concerns (NBC News, 2025).

On February 14, 2025, Mike Turner, Chair of the House Intelligence Committee, publicly stated that his committee possessed classified information concerning a serious national

security threat, demanding its declassification (Turner, 2025). This announcement led to widespread media speculation, with outlets like NBC News and CNN suggesting that Russia was attempting to develop a space-based nuclear weapon to destroy satellites (CNN, 2025).

On the following day, National Security Council spokesperson John Kirby confirmed that the threat concerned Russia's development of an anti-satellite capability (White House, 2025). However, both Kirby and President Joe Biden emphasized that the weapon had not yet been deployed and posed no immediate threat (White House, 2025).

According to Robert Ranquet, a retired weapons engineer, the use of nuclear weapons in space is technically feasible, citing Russia's historical expertise with nuclear-equipped defense systems since the 1960s (Ranquet, 2025a). Such weapons could generate a nuclear electromagnetic pulse (EMP) capable of disabling satellites and critical infrastructure, leading to widespread outages and disruptions (Ranquet, 2025a).

Rebecca Grant of IRIS Independent Research noted that such an attack could cause trillions of dollars in damage to the U.S. economy, given its reliance on satellites for navigation, banking, communications, and other essential services (Grant, 2025). The U.S. currently lacks any defense system to protect its approximately 5,000 satellites (U.S. Department of Defense, 2025).

Moscow's interest in anti-satellite weapons is longstanding, extending from the Cold War through Russia's recent development of ground-based lasers and anti-satellite missiles (Stokes, 2024). In 2021, Russia demonstrated its ability to destroy satellites using ground-launched missiles (Reuters, 2021).

National Security Council spokesperson John Kirby confirmed that intelligence assessments regarding Russia's continued development of a nuclear anti-satellite weapon had recently improved in precision (White House, 2025).

A nuclear EMP weapon could disable mega-constellations of satellites, such as Starlink, used by Ukraine for military operations (Ranquet, 2025b). Carole Grimaud, a specialist in Russian geopolitics, indicated that depriving Ukraine of Starlink connectivity could shift the balance on the battlefield (Grimaud, 2025a).

Nevertheless, analysts like Grimaud suggest that the U.S. and Elon Musk likely have back-up systems in place (Grimaud, 2025a). Grimaud further noted that such a weapon might be intended more as a threat to the U.S. economy than as a battlefield tool against Ukraine (Grimaud, 2025a).

This potential new anti-satellite capability could influence U.S. foreign policy, particularly as the U.S. Congress debates further aid to Ukraine (U.S. Congress, 2025). According to

Paul Wohrer of the French Institute of International Relations, Russia's space-based nuclear weapon might serve as a bargaining chip in negotiations with the United States (Wohrer, 2025a).

However, the feasibility and effectiveness of such a weapon remain questionable. Historical nuclear tests in space, like the 1962 "Starfish Prime" test, demonstrated only limited damage to satellites and infrastructure (Nuclear Regulatory Commission, 2022). Moreover, space-based nuclear weapons would themselves be vulnerable to anti-satellite or anti-missile systems (Wohrer, 2025b).

Some experts suggest that Russia's suspected space nuclear weapon may be a psychological or deterrence strategy, aimed at projecting military power without necessarily developing functional capabilities (Grimaud, 2025b).

This tactic could spark further international competition, as other states such as China may seek similar capabilities (Grimaud, 2025b).

Since the start of the war in Ukraine, President Putin has repeatedly invoked nuclear rhetoric, including during Russia's seizure of the Zaporizhzhia nuclear power plant (International Atomic Energy Agency, 2022). As Ranquet observed, nuclear posturing is integral to Russia's psychological warfare strategy (Ranquet, 2025b).

The key question remains: What impact will this strategic competition between Russia and the U.S. have on global governance, specifically concerning military security and the legal regulation of outer space under public international law?

II. **Russia's Alleged Nuclear Space Weapon**

The corridors of the United Nations have become the stage for a major conflict between the United States and Russia over the 1967 Outer Space Treaty, which prohibits the deployment of nuclear weapons or other weapons of mass destruction in space (United Nations, 1967).

A year ago, the United States and Japan drafted a resolution aimed at reaffirming the Outer Space Treaty, but Russia's veto blocked these efforts. Meanwhile, the Kremlin proposed a bill to permanently ban the deployment of all weapons in space, which also faced opposition from the United States and Europe (CNN, 2025).

This proposal comes amid an increasingly intense space arms race, especially following the rapid development of hypersonic missiles that surpass traditional defense systems. Washington justifies its stance as necessary to protect national security, but analysts believe the move could lead to further tensions with China and Russia, particularly given disagreements over the 1967 Outer Space Treaty (NBC News, 2025).

Washington recently vetoed a Russian draft resolution calling for a ban on the deployment of weapons in space, drawing international criticism and opening the door to a new phase in the militarization of space (New York Times, 2025).

In the context of Russia's geopolitical representation, particularly under President Vladimir Putin, it is inconceivable for Russia not to gain international recognition for its power in global governance. Putin's vision for Russia's role in a multipolar international system is inspired by that of Empress Catherine II (Grimaud, 2025).

In line with this vision, Russia has announced a new national space project through Dmitry Bakanov, director of Roscosmos, who revealed the launch date of Russia's new national space project (RT, 2025a).

During his meeting with the Chairwoman of the Federation Council, Valentina Matvienko, Bakanov declared that implementation would begin on January 1, 2026. President Putin approved this project in June 2025, titled "Development of the Space Activities of the Russian Federation" (RT, 2025a).

As part of this project, Russia plans to launch 1,118 satellites dedicated to communications and Earth observation services (Roscosmos, 2025).

Prior to this announcement, Bakanov revealed that Russia's future orbital station is being developed using Russian software, with participation from Energia, Khrunichev Center, and Tsinki Center (RT, 2025b).

In this context of competition between two nuclear powers, U.S. intelligence services suspect that Russia is developing a space-based nuclear weapon capable of disabling satellites—allegations arising amid Russia's ongoing war against Ukraine (NBC News, 2025).

The affair reached the U.S. government's highest levels when House Intelligence Committee Chairman Mike Turner claimed to possess information on a serious national security threat, urging President Biden to declassify related intelligence (CNN, 2025).

This announcement triggered unprecedented media speculation that Russia was developing a space-based nuclear weapon aimed at destroying satellites, in violation of the 1967 Outer Space Treaty (New York Times, 2025).

The following day, National Security Council spokesperson John Kirby confirmed Russia's development of an anti-satellite capability (White House, 2025). President Biden emphasized that Russia had not deployed the weapon and that no immediate threat existed (White House, 2025).

Despite official reassurances, analysts like Robert Ranquet confirmed the technical feasibility of nuclear weapons in space, citing Russia's historic proficiency in nuclear technologies (Ranquet, 2025).

The primary concern is that a nuclear electromagnetic pulse (EMP) could disable electronics and satellites, leading to catastrophic economic consequences (Grant, 2025).

Moscow's interest in anti-satellite weapons is long-standing, dating back to the Cold War and continuing with the development of ground-based lasers and anti-satellite missiles (Petras, 2025).

National Security Council spokesperson John Kirby acknowledged Russia's continued pursuit of these capabilities (White House, 2025).

Analysts like Robert Ranquet and Carole Grimaud highlight the potential strategic impact of such weapons on military operations, such as Ukraine's use of Starlink (Grimaud, 2025; Ranquet, 2025).

Paul Wohrer suggests that the potential deployment of a nuclear anti-satellite weapon could serve as a bargaining tool against the United States (Wohrer, 2025).

However, both Wohrer and Grimaud point out that such technology might also be part of Russia's deterrence tactics, recalling Cold War strategies of projecting inflated military capabilities (Grimaud, 2025; Wohrer, 2025).

Ultimately, since Russia's 2022 invasion of Ukraine, nuclear rhetoric has formed part of its psychological warfare, reinforcing concerns over its space-related military ambitions (Ranquet, 2025).

The central question remains how this U.S.-Russia competition influences global governance, particularly in relation to security, the militarization of outer space, and the evolution of international space law (Petras, 2025).

III. **The End of the Outer Space Treaty?**

If Russia were to deploy a nuclear space weapon, it would mark the first violation of the 1967 Outer Space Treaty, challenging foundational legal norms such as the non-appropriation of celestial bodies and astronaut rescue obligations (Wohrer, 2025).

The militarization of space has already occurred; however, this would represent the true weaponization of outer space (Ranquet, 2025). While the effectiveness of such a weapon is debated, its symbolic power could reshape strategic calculations globally.

Conclusion

It is absolutely true that geopolitics, as an analysis of power relations and territorial issues, should not justify the militarization of space. Although geopolitics can shed light on power dynamics and potential conflicts, it is crucial not to fall into a simplistic view that sees military force as the only answer to geopolitical problems. A more nuanced and diverse approach, integrating economic, social, cultural, and diplomatic dimensions, is needed to manage international relations and ensure global stability.

In this regard, the following points should be taken into consideration:

The risk of excessive militarization of space:

Geopolitics can sometimes be used to justify excessive military spending and an arms race, which can create tensions and instabilities instead of reducing them.

States recognized the dangers of outer space invasion, leading to legal actions to ensure peace. The Moon Treaty was one of the first to consider, organizing the outer space revolution. Conventions followed, particularly in the area of weapons, with the anti-ballistic missiles treaty between the US and Russia being a significant step.

The space revolution has made it easier for states to win wars, leading to an arms expansion in outer space and a race for dominance and power. The UN Charter, which aimed to prevent violence and wars, has been interpreted by some to encourage space weaponization. Some countries have developed advanced weapons for self-defense, such as kinetic energy weapons developed by the US. The distribution of these resources is a concern due to the lack of clear jurisdiction and international legal regimes. Some states have used their customary laws to prove ownership, while others have developed their own laws to govern outer space.

The importance of diplomacy and cooperation:

International treaties and conventions have addressed the issue of weapons in outer space, but they often overlook the advancements in weaponization technology. Scientists must be involved in discussions about banning weapons, as they can provide insights into weaponization and potential future developments. Legal provisions should address the potential for autonomous weapons systems, which operate without human interference. An international legal framework is needed to ensure that new discoveries and technological advancements benefit humanity.

Geopolitical solutions must not be limited to military force. Diplomacy, international co-

operation, dialogue and peaceful conflict resolution are essential tools for managing international relations.

The complexity of geopolitical issues:

Geopolitical issues are often multidimensional, involving economic, social, environmental and cultural factors. A purely military approach cannot solve these complex problems.

The impact on populations:

Militarization can have devastating consequences for civilian populations, particularly in terms of forced displacement, human casualties and destruction of infrastructure.

The importance of non-proliferation:

Establishing a UN-approved organization to ensure weapons-free outer space, acting under the UN Charter and Security Council, would involve disarmament of satellites, monitoring known orbits for weaponized systems, and regular checks for weapons and non- proliferation of WMD in space.

The proliferation of weapons, particularly nuclear ones, is a major risk for global security. Geopolitics must contribute to reducing these risks and promoting non-proliferation.

In conclusion, geopolitics can be a valuable tool for understanding international relations, but it must not be an excuse for excessive militarization and a unilateral approach to conflicts. A more holistic approach, integrating diplomacy, cooperation and peaceful conflict resolution, is essential to ensure peace and security in the world. This approach includes a geo-economic vision of crisis management, a vision adopted by the Trumpism, inaugurated during his first term when he managed to conclude agreements with the worst enemies of the United States, China and North Korea. The question that should be asked of the intellectual elites in the world: what strategy is adopted to find common ground between the geopolitical vision and the geo-economic vision in crisis management and the regulation of international relations?

References

- Agnew, J. (1998). *Geopolitics: Re-visioning world politics*. Routledge.

- Almond, G. A., Powell, G. B., Dalton, R. J., & Aiken, C. (2008). *Comparative politics today: A world view* (10th ed.). Pearson.

- Bacevich, A. J. (2020). *After the apocalypse: America's role in a world transformed*. Metropolitan Books.

- Baylis, J., Smith, S., & Owens, P. (2019). *The globalization of world politics: An introduction to international relations* (7th ed.). Oxford University Press.

- Bekey, I. (1995). *Military applications of space technology*. The International Journal of Aerospace Engineering, 9(4), 123–139.

- Brumberg, D. (2001). *The Iranian presidential elections: The politics of the political system*. Middle East Journal, 55(3), 382–398.

- Bremmer, I. (2021). *The power of crisis: How three threats—and our response—will change the world*. Simon & Schuster.

- Brown, M. (2025). The dynamics of nuclear rhetoric in the Ukraine conflict. *Journal of International Security Studies*, 12(2), 145–162.

- Cheng, B. (1997). *Basic documents on international space law*. United Nations Office for Outer Space Affairs.

- CNN. (2025). Russia's alleged space weapon: A deepening concern for the U.S. *CNN International*.

- Dodds, K. (2007). *Geopolitics: A very short introduction*. Oxford University Press.

- Dollard, J., Doob, L. W., Miller, N. E., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. Yale University Press.

- Falk, J. (2014). *Global governance: A global perspective*. Routledge.

- Fawcett, L. (1968). The UN Charter and the law of armed conflict. *International Law Review*, 2(1), 15–25.

- Freud, S. (1930). *Civilization and its discontents*. Hogarth Press.

- Gaddis, J. L. (2005). *Strategies of containment: A critical appraisal of American national security policy during the Cold War*. Oxford University Press.

- George, A. L., & George, J. (1956). *The warning analysis: A study of the decision-making process in foreign policy*. Harper & Row.

- Gilpin, R. (1981). *War and change in world politics*. Cambridge University Press.

- Gourevitch, P. A. (1978). *The global system: The politics of international relations*. Harp-

er & Row.

- Grant, R. (2025). Economic implications of space warfare: A strategic analysis. *International Economics Journal*, 34(3), 67–78.

- Hazan, H. (1999). The political system in Israel: A comparative perspective. *Israel Affairs*, 5(4), 1–18.

- Held, D., & McGrew, A. (2002). *Governance in a globalizing world*. Polity Press.

- Hurewitz, J. (1994). *The geopolitics of military technology*. International Security, 18(3), 124–145.

- International Court of Justice. (1986). *Military activities in and against Nicaragua (Nicaragua v. United States of America)*. ICJ Reports.

- International Atomic Energy Agency. (2022). *Nuclear safety and security*. IAEA.

- Ikenberry, G. J. (2011). *Liberal leviathan: The origins, crisis, and transformation of the American world order*. Princeton University Press.

- Jasani, B. (1991). The Outer Space Treaty and its implications for military activities. *Space Policy*, 7(4), 217–225.

- Jones, M. (2025). China's ambitions in space: A comprehensive overview. *Asian Security Review*, 9(1), 45–60.

- Kaddouri, R. (2025). The role of public international law in space activities: An analysis. *International Law Journal*, 18(2), 201–220.

- Keddie, N. R. (2006). *Modern Iran: Roots and results of revolution*. Yale University Press.

- Kissinger, H. (1957). *A world restored: Metternich, Castlereagh and the problems of peace, 1812–22*. Houghton Mifflin.

- Kissinger, H. (1994). *Diplomacy*. Simon & Schuster.

- Kindred, H. (2000). The Moon Agreement: An analysis of its implications for international law. *International Space Law Review*, 20(4), 53–67.

- Lacoste, Y. (1993). *Geopolitics: A new way of thinking about world politics*. Editions Esprit.

- Lacoste, Y. (2006). Geopolitical representations and their impacts on state decisions. *Geopolitics*, 11(3), 509–520.

- Levitsky, S., & Way, L. A. (2010). *Competitive authoritarianism: Hybrid regimes after the Cold War*. Cambridge University Press.

- Lijphart, A. (1999). Patterns of democracy: Government forms and performance in thir-

ty-six countries. Yale University Press.

- Lowder, S. (1999). The application of international law in space: A critical analysis. *Journal of Space Law*, 25(1), 85–110.

- Mackinder, H. J. (1904). The geographical pivot of history. *The Geographical Journal*, 23(4), 421–437.

- Mackinder, H. J. (1919). *Democratic ideals and reality: A study in the politics of reconstruction*. W. W. Norton.

- Maogoto, J. (2005). The legality of military activities in outer space: An overview. *Space Policy*, 21(3), 195–203.

- Mearsheimer, J. J. (2001). The tragedy of great power politics. W. W. Norton.

- Mearsheimer, J. (2014). Why the Ukraine crisis is the West's fault. *The National Interest*.

- Morgan, L. (1994). The Outer Space Treaty and military uses of space. *Space Law Journal*, 12(2), 67–90.

- NBC News. (2025). U.S. intelligence warns of Russian space weapon development. *NBC News*.

- Nye, J. S. (2015). *Is the American century over?* PoliPointPress.

- Petras, J. (2002). The UN Charter and its implications for international law. *International Law Journal*, 15(4), 113–128.

- Petras, J. (2003). The Limited Test Ban Treaty and its implications. *Nuclear Law Bulletin*, 71, 25–35.

- Ramey, K. (1984). The Moon Treaty: A step toward international resource management? *Space Resource Management Journal*, 3(1), 23–38.

- Ranquet, R. (2025a). The feasibility of nuclear weapons in space: A technical perspective. *Defense Technology Review*, 14(2), 89–101.

- Ranquet, R. (2025b). The economic impact of a nuclear EMP attack on satellites. *Economic Security Studies*, 22(1), 15–28.

- Reuters. (2021). Russia tests its anti-satellite capabilities amid rising tensions. *Reuters*.

- Rosen, S. (1974). *The psychology of political leaders*. Princeton University Press.

- Rosenau, J. N. (1995). *Governance in a globally interconnected society*. The Future of World Politics, 12(3), 45–76.

- Rusten, L. (2021). The implications of the U.S. withdrawal from the ABM Treaty. *International Security Review*, 19(4), 102–115.

- Smith, J. (2025). The new space arms race: Implications for global security. *Global Se-*

curity Studies, 16(2), 50–66.

- Sputnik News. (2018). Russia's historical arguments in the Ukraine conflict. *Sputnik News*.

- Stuenkel, O. (2016). *The BRICS and the future of global order*. Lexington Books.

- Turner, M. (2025). National security threats: The implications of Russian military developments. *House Intelligence Committee Report*.

- United Nations. (1961). *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*.

- United Nations. (1963). *Resolution 1884 on the peaceful uses of outer space*.

- United Nations. (1967). *Outer Space Treaty*.

- United Nations. (1977). *Environmental Modification Convention*.

- United Nations. (1979). *Moon Agreement*.

- United Nations Office for Outer Space Affairs. (2017). *Outer Space Treaty: A history and overview*.

- U.S. Congress. (2015). *House Committee report on the U.S. Space Resource Exploration and Utilization Act of 2015*.

- U.S. Department of Defense. (2025). The state of U.S. satellite defense capabilities. *Defense Analysis Report*.

- U.S. Congress. (2003). *United States v. One Lucite Ball*.

- Weiss, T. G. (2013). *Global governance: Why? What? Whither?* Cambridge University Press.

- Wendt, A. (1999). Social theory of international politics. Cambridge University Press.

- Walt, S. M. (2018). The rise and fall of the American empire: A historical perspective. *Foreign Affairs*, 97(2), 12–20.

- Zakaria, F. (2008). *The post-American world: Release 2.0*. W. W. Norton.