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The Right of Self-defence in the Earth's Orbit

Abstract

The increasing presence of non-State actors in space raises a plethora of legal questions, including those related to the use of force, especially in the context of the right of self-defence. The first aim of this article is to explain the legal basis for resorting to force in the exercise of self-defence in space, specifically in the Earth's orbit. The second goal is to contribute to the legal framework concerning how States may exercise self-defence against attacks committed by non-State actors in space. In this regard, the author distinguishes between the rules of attribution of the use of force to a State and the "unwilling or unable" doctrine. It is suggested that the latter may be transposed into the space domain, *mutatis mutandis*, by a re-conceptualisation of the notion of a State's "territory", shifting from its sovereignty-based foundation towards State jurisdiction. Further on, in the realm of the rules of attribution of conduct to a State, the author compares the ARSIWA rules of State responsibility with the strict responsibility regime of the Outer Space Treaty (OST), to clarify which system applies when addressing State responsibility for the use of force by non-State actors in space. Three solutions are offered in this regard. The first rests on the premise that space law, specifically Article VI OST, may be seen as *lex specialis* in relation to ARSIWA. The second supports the view that the general rules of State responsibility in ARSIWA should apply, as they are secondary rules of international law, whereas Article VI OST encompasses primary rules. The third approach offers a combined reading of Article VI OST and ARSIWA, based on a systematic interpretation of the norms contained therein, to preserve the purpose of the secondary rules on State responsibility.

Key words

Outer Space Treaty, Article IV OST, Article VI OST, Peaceful Purposes, National Activities, Self-defence in Space, Strict Responsibility Regime.

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> "*We will engage terrestrial targets somedayships, airplanes, land targets—from space. We will engage targets in space, from space […] [The] missions are already assigned, and we've written the concepts of operations*".
> Gen. Joseph W. Ashy, United States Air Force (USAF), 1996

1. A New Era in the Usage of Space

Since 12 April 1961, when Yuri Gagarin ventured into space on the Vostok 1 as the first human in history—opening new dimensions of human ingenuity and broadening the horizons of the imaginable—a plethora of questions on space remain unanswered. While scientists are searching for the elements of a complete theory of the universe, the so-called quantum theory of relativity[1], to provide us with an explanation of our surroundings, legal scholars and practitioners are trying to define the contours of the *juris spatialis internationalis*.

As explained by General Joseph W. Ashy of the USAF back in 1996, States globally seek to contribute and improve their space-related capabilities in the area of the use of force, with theoretical models of such usage being perfected as a matter of national strategic importance.[2] It is noteworthy that, upon establishing the United States Space Force (USSF), former President of the United States of America (USA) Donald J. Trump stated that Space is the new warzone.[3] With this, the USA's plans for the militarisation of space became visible.[4] The creation of the USSF naturally did not occur in a vacuum: it is said that this establishment is a direct response to the perceived threats arising from the Great Power Competition (GPC) in the space domain. Here, the aim is to shape the USSF in such a way as to ensure US military supremacy in space to deter, and if need be, prevail over competitors in the era of the GPC.[5] Besides the USA, the Russian Federation (Russia) and the People's Republic of China (China) are seen as major competitors building up their space related capabilities in the use of force, with Russia having established its own Space Forces on 10 August 1992, and China forming the People's Liberation Army Aerospace Force rather recently, on 19 April 2024.[6]

The deployment of gear into space that could be used in the exercise of force is no longer a purely futuristic idea. At the outset, it is important to distinguish the terms militarisation and weaponisation of space when discussing a possible resort to force in space.

1 Hawking, 2016, pp. 187–204.
2 Ramey, 2018, p. 193.
3 BBC, 2019.
4 Schladebach, 2020, pp. 60–61.
5 United States Space Force, 2024; Savoy & Staguhn, 2022, p. 1.
6 China Aerospace Studies Institute, 2024, p. 2.

Although both terms are intertwined and a clear-cut distinction is difficult to ascertain, militarisation usually implies the presence of military assets in space, while weaponisation refers to the actual usage of those means for military activities.[7] In contemporary debates on the weaponisation of space, the term "space weapons" most commonly refers to: a) any weapons (whether land-, sea-, or air-based) that can damage a satellite or interfere with its functioning[8]; and b) any space-based weapons which are intended to attack objectives (i.e., targets) in space or on the ground.[9] Throughout this article, whenever space weapons are mentioned, the term reflects these definitions.

Currently, the possibility of anti-satellite use of force is, worryingly, no longer a distant imagination but rather an ever-closer reality. Concerns have already been expressed, for example, regarding the Russian "nesting doll" satellite, possibly capable of performing kinetic attacks and serving as a model of a counterspace weapon to attack other satellites in low Earth orbit.[10] Interestingly, Russia deployed this presumed new counterspace weapon into exactly the same orbit in which a U.S. government satellite operates. Other weapons are also in development, such as lasers to dazzle satellites, as well as "grappling" satellites that can be used to grab and tow other satellites out of their orbit.[11] Thus, the concept of space warfare as it is currently most widely understood gravitates around the destruction of unmanned military assets in space, most commonly satellites in the Earth's orbit.[12] With ongoing technological developments in the field, other military tactics will likely follow, continuously expanding the scope of the use of force.

Historically, space was considered State-ruled, but this is beginning to change rapidly. Nowadays, several actors are active in space, including manufacturers, launch providers and spacecraft operators. For example, in the USA, numerous corporations (e.g., Space Exploration Technologies Corporation (SpaceX), Virgin Galactic, and Lockheed Martin Commercial Launch Services) have been granted licences for space launches, with SpaceX alone having received 369 licences.[13] The presence of private parties in space, together with the activities they undertake there, raises a plethora of questions.[14] One of

7 Tripathi, 2013, pp. 193–194; Krepon & Clary, 2003, pp. 29–30.

8 The latter are also known as anti-satellite (or ASAT) weapons.

9 In this group, space-based ballistic missile defence interceptors and ground-attack weapons are included. See: Boothby, 2017, pp. 206–213; Wright et al., 2006, p. 1.

10 Hadley & Gordon, 2024.

11 *Ibid*.

12 Ramey, 2018, p. 190.

13 Federal Aviation Administration, 2023.

14 One challenge is to define the scope of liability of private operators in case catastrophic accidents occur in space resulting in death. Precisely the lack of a sufficiently clear and coherent international legal framework on the civil liability of private operators is one of the main reasons why States have adopted their own national laws in this area, with international organisations following their lead, such as the European Union (EU) with its upcoming EU Space Law, see: Ziemblicki & Oralova,

those is the potential use of force by private actors in space—whether via an anti-satellite system they operate or through the use of kinetic energy projectiles against another space object—be it following the orders of a State or of their own accord. It is true that, until now, no clear case of the use of force in space has been established, whether by a State or a non-State actor. However, given the increasing global reliance on space systems, as well as the rising militarisation and weaponisation of space, especially in the Earth's orbit, an evolution of space into a distinct theatre of military operations appears highly likely, rendering the study of the use of force in space a much-needed reality.[15]

In light of the above, this article aims to tackle a topic of growing importance in the space domain: the use of force, especially in the context of self-defence, and the challenge of attributing responsibility for the use of force by non-State actors to a given State in space. Since, for mostly technical and scientific reasons, military development is limited to the Earth's orbit—at least for the moment and in the near future—the analysis undertaken shall likewise be restricted to the Earth's orbit, leaving the use of force in other areas of outer space only marginally addressed. The first aim of this article is to explain the legal basis for the resort to force in the exercise of self-defence in space, specifically in the Earth's orbit. The second goal is to contribute to the framework concerning how States may exercise self-defence against attacks committed by non-State actors in space. In this regard, the article distinguishes between the ARSIWA model of responsibility of States for the use of force committed by non-State actors and the "unwilling or unable" doctrine. In the realm of the rules of attribution of conduct to a State, the article delves into the comparison between the ARSIWA[16] model on State responsibility and the strict responsibility regime of the Outer Space Treaty (OST),[17] to illuminate which system applies for addressing the use of force by non-State actors in space.

2. Resorting to the Use of Force in Space

At the outset, it is beneficial to first briefly sketch the international space law rules relevant to the topic of this article. The analysis that unfolds throughout the article will be based on this legal framework. Already in the 1960s, the United Nations General

2021, pp. 1–2; Stefoudi, 2024; As regards the space-related activities of the EU, see: Cross, 2021, pp. 31–46.

15 Ramey, 2018, p. 205. See also: Buchan, 2023.

16 Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA), Annex to General Assembly resolution 56/83 of 12 December 2001, and corrected by document A/56/49(Vol. I)/Corr.4.

17 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the Outer Space Treaty, OST), Washington, Moscow & London, 27 January 1967, 610 UNTS 205.

Assembly (UNGA) adopted several resolutions tackling what was to become the legal regime for space activities undertaken by States or private entities.[18] For example, in Resolution 1962 (XVIII), entitled Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space[19], the UNGA Member States concluded that the activities of States in the use of outer space must be carried out in accordance with international law, most notably the UN Charter, in the interest of international peace and security.[20] Such resolutions were considered as an expression of instant custom shortly after their adoption.[21]

The legal framework of international space law, composed of the most significant treaties dates back to 1967 with the OST[22] and the subsequent Convention on International Liability Caused by Space Objects[23], the Convention on Registration of Objects Launched into Outer Space[24], the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space[25], and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement).[26] Adopted in the Annex of UNGA Resolution 2222 (XXI), the OST, which was largely based on UNGA Resolution 1962 (XVIII), is generally considered to provide the principal regulatory mechanism for human activities in space. The subsequent treaties mostly address specific issues of space law, thus clarifying the scope of the OST via a systematic interpretation of the norms contained therein.[27] Since the OST represents the foundation of international space law, it naturally follows to begin assessing the possibilities for the use of force in space within the contours of the OST.[28]

It is argued by some legal scholars that, by virtue of Article I of the OST—which states that the exploration and use of outer space "shall be carried out for the benefit and in the interests of all countries"—virtually any form of military activity is prohibited, however exercised and for whichever purpose.[29] Indeed, already in its Preamble, the OST recognises that UNGA Resolution 110 (II) *of* 3 November 1947, condemning any form

18 Yun, 2018, pp. 1–3.

19 UNGA Resolution 1962 (XVIII), 13 December 1963.

20 *Ibid.*, § 4.

21 Shaw, 2017, p. 405.

22 Washington, Moscow & London, 27 January 1967, 610 UNTS 205.

23 Washington, Moscow & London, 29 March 1972, 961 UNTS 187.

24 New York, 12 November 1974, 1023 UNTS 15.

25 Washington, Moscow & London, 22 April 1968, 672 UNTS 119.

26 New York, 5 December 1979, 1363 UNTS 3.

27 Borgen, 2020.

28 Martinez et al., 2019, pp. 28–29; Delegation of the European Union to the United Nations in New York, 2023.

29 Shaw, 2017, p. 406 and the references listed in fn. 343.

of propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression, is applicable to outer space. Nevertheless, when it comes to regulating the use of force, Article IV of the OST is widely regarded as the backbone of the legal rules on the use of force in space.[30] While it is true that, during the genesis of the OST, the idea of a peaceful usage of space was stressed on several occasions, one must distinguish between the text of both paragraphs of Article IV to understand how the OST regulates the reliance on force in the space domain.[31]

2.1. The Prohibition of Weaponisation of Space as per OST

According to Article IV(1), States Parties to the OST undertake not to place in orbit around the Earth any objects which could carry nuclear weapons or any other kinds of weapons of mass destruction (WMD). States Parties are also prohibited from installing such weapons on celestial bodies or from stationing such weapons in outer space in any other manner. The norm in paragraph 1 is a direct inclusion of UNGA Resolution 1884 (XVIII), adopted unanimously on 17 October 1963, indicating such prohibitions. Hence, paragraph 1 unequivocally prohibits the placement of WMD in space. However, the norm does not prohibit States from placing weapons other than WMD into the Earth's orbit. This appears to be the first material limitation of the OST on the question of militarisation and weaponisation of space, alongside the absence of a definition of what constitutes a WMD.[32]

Furthermore, nuclear weapons and other WMD which are not stationed in the Earth's orbit but merely pass through it also evade a clear-cut prohibition. By virtue of this, weapons such as intercontinental ballistic missiles with a nuclear warhead (with an arc-like trajectory) and orbital bombs are missing from the prohibition of Article IV(1), as well.[33] This legal loophole was historically addressed to a certain extent via treaties on the limitation of armament such as the SALT-II Treaty of 1979[34], Article VII of which states that "fractional orbital missiles" shall be removed and destroyed.[35] Thus, worryingly, as per the text of Article IV(1) OST, nuclear weapons and WMD may still venture into the Earth's orbit, albeit only temporarily for the purposes of passage.[36] On the other

30 Lee, 2003, p. 93.

31 Dembling & Arons, 1967, pp. 425 and 432–435.

32 Ramuš Cvetkovič, 2024, p. 62.

33 Schladebach, 2020, p. 61.

34 Treaty Between the United States of America and The Union of Soviet Socialist Republics on the Limitation of Strategic Offensive Arms, Together With Agreed Statements and Common Understandings Regarding the Treaty, Signed at Vienna, 18 June 1979.

35 Schladebach, 2020, pp. 60–62.

36 Nevertheless, certain limitations on the usage of nuclear weapons stemming from general international law still exist, see for example: *Legality of the Threat or Use of Nuclear Weapons*, Advisory

hand, stationing conventional weapons in space appears *prima facie* not to contravene the OST. Since conventional space weapons can be divided into three main categories (Earth-to-space, space-to-space, and space-to-Earth), with a further subdivision into kinetic and non-kinetic weapons with either temporary or permanent effects,[37] the choice of weaponry not expressly prohibited by the OST seems rather broad.

To mitigate these concerns at least to a certain extent, Article IV(2) OST provides that the Moon and other celestial bodies must be used by the States Parties "exclusively for peaceful purposes". In this regard, the establishment of military bases, installations and fortifications, the testing of any type of weapons, as well as the conduct of military manoeuvres on celestial bodies, is directly prohibited, as it contravenes the idea of usage for a "peaceful purpose". On the other hand, relying on military personnel for scientific research or for any other "peaceful purposes" is expressly allowed. Thus, for the Moon and other celestial bodies, there exists an unambiguous prohibition of militarisation within the OST. The norm of Article IV(2) OST is also applicable, among others, to the question of the use of force in the Earth's orbit. This is the case since celestial bodies, mostly asteroids, may enter that orbit, while military activities technically could be exercised on such bodies if the need arose.[38] In light of the above, a crucial question arises as regards the general weaponisation of outer space: how is the term "utilisation for peaceful purposes" to be understood?[39]

2.2. Utilisation of Space for "Peaceful Purposes" as per OST

The interpretation of the term "peaceful purposes" in the OST indeed forms one of the centrepieces of the discussion on the use of force in space. As explained by Su, it used to be understood that it might only fit the purpose of Article IV to interpret "peaceful" as "non-military".[40] According to this notion, any military operation in space violates Article IV. This interpretation, however, does not sufficiently appreciate the distinction between militarisation and weaponisation of space. Schladebach reasons convincingly that Article IV must be interpreted[41] in light of Article III OST.[42] Article III provides that States Parties to the OST must exercise their activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the UN Charter—all in the interest of maintaining international peace

Opinion, I.C.J. Reports 1996 (*Legality of the Threat or Use of Nuclear Weapons*), p. 226, especially paras. 31, 79; Kütt & Steffek, 2015, pp. 402–407.

37 Gleason & Hays, 2020, p. 2; For more information on space weapons see: Harrison, 2020.

38 Harris & D'Abramo, 2015, p. 302; Santos, 2021.

39 Sandeepa & Kiran, 2009, pp. 210–211.

40 Su, 2010, p. 258.

41 Gardiner, 2010, pp. 177–188 and 278–287.

42 Schladebach, 2020, p. 63.

and security. By virtue of this invocation of the UN Charter, the OST makes a direct reference to the norms contained therein, which is especially pertinent in the context of the law of treaties. Article 31(3)(c) of the Vienna Convention on the Law of Treaties (VCLT) provides that any relevant rules of international law applicable in the relations between the parties must be taken into account when interpreting a treaty.[43] Thus, by virtue of the reference to the UN Charter in Article III OST, this provision of the OST should be interpreted, where relevant, in the context of the UN Charter.

Such an integrated understanding of the norms governing the use of force in space, linking the OST with the provisions of the Charter, was confirmed in the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries.[44] In Article I, the Declaration stipulates that the use of outer space for peaceful purposes must be conducted in accordance with a joint interpretation of the provisions of international law, the UN Charter, and the OST.[45] A systematic interpretation of the "peaceful purposes" diction of Article IV of the OST is, therefore, a prerequisite since the OST must be interpreted and applied in the broader context of international law, including the UN Charter.[46]

Since Article III OST provides for the application of the UN Charter in relation to the notion of "peaceful purposes" in Article IV, the rules on the use of force of the UN Charter become especially relevant. As is widely known, States bear international responsibility in line with the prohibition in Article 2(4) of the UN Charter, and customary international law on the unlawful use of force or the threat of its use.[47] Nevertheless, in a few situations, the wrongfulness of such usage is precluded—one of them being self-defence.[48] Hence, Article III OST, via the UN Charter as a linking element, provides for the application of Article 51 on self-defence in the context of the OST, together with its customary international law elements.[49] The cross-reference of Article III OST to the norm of Article 51 UN Charter on self-defence shows that the use of force is indeed possible

[43] Vienna, 23 May 1969, 1155 UNTS 331; d'Aspremont, 2012, pp. 147–148.

[44] Adopted in the Annex of UNGA Resolution 51/126, 13 December 1996.

[45] Similarly, Section 3 titled "Peaceful purposes" of the recently adopted Artemis Accords stipulates that: "The Signatories affirm that cooperative activities under these Accords should be exclusively for peaceful purposes and in accordance with relevant international law": the Artemis Accords, Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes, 13 October 2020. See: Bartóki-Gönczy & Nagy, 2023, p. 888; Smith, 2021, pp. 679–680.

[46] Lee, 2003, p. 94.

[47] *Armed Activities on the Territory of the Congo* (Democratic Republic of the Congo v. Uganda), Judgment, I.C.J. Reports 2005 (*Armed Activities on the Territory of the Congo*), p. 168, § 148.

[48] Wilmshurst, 2005, p. 4.

[49] Merkouris, 2017, p. 138.

in space, encompassing both the Earth's orbit and outer space in general, via the exercise of self-defence. Naturally, other conditions must be satisfied if a State wishes to invoke self-defence as a circumstance precluding wrongfulness, such as the customary international law conditions of necessity and proportionality.[50] Here, the particularities of space warfare in the Earth's orbit ought to be considered. To indicate just one major challenge: as of 27 December 2024, there are 11,463 space objects orbiting Earth.[51] Self-defence in the Earth's orbit could thus affect the assets of other States, as well as cause harm to the space environment. Both factors must be addressed in any assessment of the criteria of necessity and proportionality of self-defence undertaken in the space domain.[52]

Exercising self-defence against an attack involves a response with military force to counter the attack. Thus, given that the right of self-defence is permitted in space, the term "peaceful purposes" in Article IV OST must not be understood as "non-military" or "without military force", but rather as "without aggression" or "without aggressive force".[53] This is the case since, in light of Article 2(4) of the UN Charter, lawful self-defence precludes the wrongfulness (i.e., the "aggressiveness") of the use of force.[54] An interpretation of the term "peaceful purposes" as "without military force" would thus deprive the reference in Article III OST to the UN Charter—especially Article 51 on self-defence—of its effect.[55] Hence, if a State Party to the OST uses force in space within the bounds of lawful self-defence in accordance with the prerequisite conditions, such use of force is not prohibited in the Earth's orbit, nor in any other area of outer space. By virtue of this, the militarisation and weaponisation of space are precluded except for lawful acts of use of force in line with the UN Charter (which also includes the Chapter VII powers of the UN Security Council). An analogous conclusion can be made for self-defence as a norm of customary international law, given that Article III expressly refers to this source of international law, which continues to have its own separate existence despite being incorporated into Article 51 of the UN Charter.[56]

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50 *Oil Platforms* (Islamic Republic of Iran v. United States of America), Judgment, I.C.J. Reports 2003 (*Oil Platforms*), p. 161, §§ 43 and 76; Kretzmer, 2013, pp. 239–240 and 273.

51 Orbiting now, 2024.

52 Similar to the impact in terms of environmental damage caused on Earth by the use of force, see: *Legality of the Threat or Use of Nuclear Weapons*, p. 226, §§ 28–33.

53 Tepper, 2024, p. 481; see also: Cheng, 2000, p. 107. For a different perspective, see: Friman, 2005.

54 ARSIWA, Art. 21: Self-defence; cf. Kreß, 2016, p. 412.

55 Schladebach, 2008, p. 220.

56 *Military and Paramilitary Activities in and against Nicaragua* (Nicaragua v. United States of America). Merits, Judgment. I.C.J. Reports 1986 (*Military and Paramilitary Activities in and against Nicaragua*), p. 14, § 178.

3. Self-Defence in the Earth's Orbit: The Rules of Attribution for the Use of Force in International Space Law

Until this point, it was established that, pursuant to Article IV of the OST, the use of force in space, including the Earth's orbit, is not prohibited if exercised in lawful self-defence. Naturally, as with all circumstances that may preclude the international wrongfulness of a State's act, one must scrutinise which standards apply to such self-defence for a State to successfully invoke it.[57] This section will focus on the characteristics of the attack itself, against which self-defence can be exercised, specifically from the viewpoint of attribution of the use of force. Much ink has already been spilled on this question, yet the challenging part is whether it is suitable simply to transpose, by virtue of analogy, the existing rules on State responsibility in the realm of the use of force on Earth to the space domain.

According to the jurisprudence of the ICJ, self-defence is an inter-State question, with one State bearing responsibility for the attack and another State being subjected to the use of force. For the responsibility of a State to arise and for self-defence subsequently to be possible, the use of force must, therefore, be attributed to a given State—even if exercised by non-State actors. The latter derives from the *Wall* Advisory Opinion, in which the Court opined that self-defence, as an inherent right of States, only becomes relevant if armed attacks are imputable to a foreign State.[58] By this reasoning, a State is barred from using force in self-defence against another State if the threshold for attributing the initial armed attack to that State is not met.[59] This refers to the classic, State-centric concept of an armed attack, which was upheld by the Court in the later case between the Democratic Republic of Congo (DRC) and Uganda.[60] In that case, the Court held on to the requirement that the notion of self-defence requires the involvement of another State—thus following the "State armed attack" concept. In its reasoning, the Court stated that it had not found satisfactory proof of the involvement in the alleged attacks, direct or indirect, of the Government of the DRC. Further, as the attacks did not emanate from armed bands or irregulars sent by the DRC or acting on behalf of the DRC, irrespective of the potency of the attack, they "remained non-attributable to the DRC".[61] Consequently, Uganda was barred from successfully invoking self-defence to preclude the wrongfulness of its exercise of armed force against the DRC.

57 Farhang, 2013, p. 3.

58 *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, I.C.J. Reports 2004 (*Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*), p. 136, § 139; *Oil Platforms*, p. 161, § 51: "[…] the United States has to show that attacks had been made upon it for which Iran was responsible".

59 Akande & Milanovic, 2015; O'Connell, 2013, pp. 380 and 383; Tladi, 2013, p. 572.

60 Starski, 2015, p. 462.

61 *Ibid*.; *Armed Activities on the Territory of the Congo*, p. 168, § 146.

The premise of the ICJ is that successful reliance on Article 51 of the UN Charter thus requires the initial use of force in the form of an armed attack against the assets of a State to be attributable to another State. On the other hand, in the past 23 years, a new debate emerged on whether non-State actors *per se* (i.e., without their acts being attributed to a State) may also be regarded as capable of launching an armed attack in line with the dictum of Article 51 of the UN Charter.[62] This newly emerged State practice appears to dispense with the requirement of attributing the use of force to a State.

Given the rapid development in space exploration and possible militarisation, a situation in which non-State actors *per se* exercise force against the assets of another State in space appears plausible. Thus, the concept of self-defence of States against attacks by non-State actors, whether attributable to a State or not, requires further examination in space law.

3.1. Self-Defence of States Against Non-State Actors: The Challenge of (Non) Attribution

Globally, several States argue that the ordinary understanding of self-defence as recognised in the UN Charter is overly restrictive for the modern world.[63] Within this traditional framework, the paramount criterion was attribution—the act of attributing an attack to a given State, whether force was utilised by State organs or non-State actors. The State to which force could be attributed would be seen as responsible for the use of force, rendering it a target of potential self-defence by the victim State.[64] Nevertheless, since the attack of 11 September 2001 on the World Trade Center in New York, some States have expressed doubts over whether such an understanding of self-defence is still appropriate for the contemporary challenges of transnational terrorism. For example, it was widely claimed that the USA acted in self-defence against Al-Qaida in 2001, while Iraq, France, the United Kingdom, and the USA asserted the right of self-defence (individual or collective) in their campaign against the Islamic State of Iraq and Syria (ISIS) in Syria.[65]

The situation in the immediate aftermath of 11 September 2001 seemed to suggest that the right of self-defence of Article 51 of the UN Charter is available against attacks

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62 For a discussion on the topic see: O'Connell, Tams & Tladi, 2019; Brunnée & Toope, 2016; Korošec & Tekavčič Veber, 2016.

63 Wood, 2013, p. 355; see also the 2002 National Security Strategy with the references to "preventive action" therein, in: The White House, 2002.

64 *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, p. 136, § 139, *Military and Paramilitary Activities in and against Nicaragua*, p. 14, § 195.

65 Paddeu, 2017, pp. 2–4; see also the summary record of the UNSC meeting of 20 November 2015, S/PV.7565, at p. 2 (France), 4 (USA), 9 (United Kingdom). See also the letters sent to the UNSC: UN Docs. S/2014/695 (USA); S/2014/851 (United Kingdom); S/2015/745 (France); Hakimi, 2015. See also several blog posts, e.g.: Ohlin, 2014; van Steenberghe, 2015.

committed by non-State actors without a need to attribute the actions of the non-State actor to a particular State. After the Twin Towers attacks, the Security Council adopted Resolutions 1368 (2001) and 1373 (2001), recognising "the inherent right of individual or collective self-defence in accordance with the Charter".[66] As indicated above, State practice, including that of the members of the North Atlantic Treaty Organization, the members of the Organization of American States and others, indeed supported such a right, in an apparent rift with the jurisprudence of the ICJ.[67]

In this context, the authors of the Chatham House study titled Principles of International Law on the Use of Force in Self-Defence concluded that necessary and proportionate action could be taken in a situation where the territorial State is itself "unable or unwilling" to take the required and necessary action.[68] The drafters of the Leiden Policy Recommendations on Counter-Terrorism and International Law of 1 April 2010, as well as Daniel Bethlehem in his set of principles on the scope of a State's right of self-defence against attacks by non-State actors, reached a similar conclusion.[69] Several States have been strongly advocating since 2001 for this new understanding of self-defence to be acknowledged as a binding part of international law,[70] with supporters of the "unable or unwilling" standard arguing that it now forms a part of customary international law.[71]

Considering the abovementioned State practice and academic opinion, the standard of "unable or unwilling" demands further attention as to its scope and meaning. In this regard, it is helpful to refer to the precise examples offered in 2016 by the White House in its "Legal and Policy Framework" on the use of force. The White House submitted that the standard of an unwilling or unable State might be invoked when a "State has lost or abandoned effective control over the portion of its territory' from which a given non-State actor operates"; or, alternatively, where "a State is colluding with or harbouring a terrorist organisation operating from within its territory and refuses to address the threat posed by the group".[72] In other words, on the basis of the "unwilling or unable" standard, self-defence could be exercised by States against non-State actors who have effectively displaced State control over the territory from which they operate. Alternatively, the standard covers situations where a State is providing a haven for terrorists and refuses to

66 UNSC Resolution 1368 (2001), S/RES/1368 (2001), 12 September 2001; UNSC Resolution 1373 (2001), S/RES/1373 (2001), 28 September 2001.

67 Wood, 2013, p. 356.

68 Wilmshurst, 2006, p. 963.

69 Leiden Policy Recommendations on Counter-Terrorism and International Law, 2010, p. 531; Bethlehem, 2012, pp. 770–777; Wilmshurst & Wood, 2013, pp. 390–395.

70 Brunnée & Toope, 2018, p. 282.

71 For a comprehensive analysis of this question, see: Williams, 2013, pp. 619–641; Corten, 2016; Jordan, 2024.

72 The White House, 2016, p. 10.

act against them.[73] Thus, instead of relying on the traditional link of attributing an attack by a non-State actor to a State, self-defence could be exercised as it is necessary "because the government of the State where the threat is located is unable or unwilling to prevent the use of its territory by the non-State actor for such attacks".[74]

Nevertheless, it must be emphasised that the idea of pursuing self-defence against non-State actors within the territory of States deemed "unwilling or unable" is far from being universally accepted.[75] In the opinion of dissenting States, the most lenient view *vis-à-vis* this standard is that the use of force by States in self-defence against attacks by non-State actors stemming from the territory of a third State is not "not unambiguously illegal".[76] One of the main challenges of this concept is the open vagueness regarding the parameters regulating when States can actually invoke it to exercise self-defence against non-State actors on the basis of Article 51 of the UN Charter. Namely, in the case of attacks launched by non-State actors from the territory of another State, the latter could be arbitrarily labelled either as unwilling or unable to act. While it is unreasonable to expect States to remain passive in the wake of an attack by non-State actors, it is likewise unreasonable to present a State that is willing but unable with a Catch-22 situation: either consent to the use of force by another State to your territory or be subjected to it regardless.[77]

3.2. "Unable or Unwilling" States in Space and the Rules of Attribution of Conduct

When attempting to transpose the discussion on self-defence within "unwilling or unable" States into space, the challenges posed by this concept are amplified even further. This is because, unlike on Earth, in space there exist no sovereign borders or territories of States.[78] The elementary rule in this regard is Article II of the OST, which stipulates that outer space, including the Moon and other celestial bodies, is not subject to national appropriation via a claim of sovereignty, means of use or occupation, or by any other means. The dictum of Article II OST has been interpreted as precluding the possibility of property rights by any State, commercial entities, or private persons over any part of outer space.[79]

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73 Brunnée & Toope, 2018, p. 286.

74 The White House, 2016, p. 10.

75 Ruys & Verhoeven, 2005, p. 310; Paddeu, 2017, pp. 2–4; Wood, 2013, pp. 365–367.

76 Paddeu, 2017, pp. 2–4; for a similar position, see: Antonopoulos, 2008, pp. 159–180.

77 Ruys & Verhoeven, 2005, p. 310; Paddeu, 2017, p. 310; Brunnée & Toope, 2018, p. 285.

78 Sharma & Singh, 2012, p. 277; Lee, 2004, pp. 128–129; Pop, 2000, p. 275; Indo-Pacific Defense Forum, 2023.

79 Similar provisions can be found in Article 11, §§ 2 and 3 of the Moon Agreement: "2. The moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means & 3. Neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or

Thus, with no possibility of a defined "territory" in space, the "unwilling or unable" standard, even if part of (customary) international law, faces a structural obstacle. If there can be no notion of "territory" in line with the conventional understanding of a State's territory, how could States exercise self-defence against non-State actors acting from the "territory" of "unwilling or unable" States? Does this imply that the act of force by a non-State actor must commence on Earth, on the territory of an unwilling or unable State, and then culminate in space against the assets of another State—for instance, a satellite?

One potential way to overcome this predicament is to re-conceptualise, when in space, the concept of a State's "territory" away from its sovereignty foundations and towards territorial jurisdiction. Both sovereignty and jurisdiction imply a State's control over territory, but the notion of jurisdiction is broader. If outer space lies outside the traditional sovereignty rules of States, it is by no means entirely outside the rules on State jurisdiction. Sovereignty concerns a State's control in a given territory, while jurisdiction refers to the ability of States to prescribe and enforce law and order within their territory. By virtue of this, jurisdiction is ascribed according to three dimensions: jurisdiction to prescribe, jurisdiction to adjudicate, and jurisdiction to enforce, each of which has already been observed in space.[80] In this sense, even the OST stipulates in Article VIII that those States on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body.[81] Additionally, it is possible for a State to exercise extraterritorial jurisdiction in outer space. Thus, while activities can be extraterritorial—including in space—they are not necessarily extrajudicial.[82]

It is within this context that an argument could be made for re-interpreting the concept of a State's "territory" as a part of the "unable or unwilling" standard, at least in space given its specific legal and factual circumstances, in accordance with the notion of territorial *jurisdiction*. Hence, if a State obliged to exercise its jurisdiction or control

non- governmental organization, national organization or non-governmental entity or of any natural person. The placement of personnel, space vehicles, equipment, facilities, stations and installations on or below the surface of the moon, including structures connected with its surface or subsurface, shall not create a right of ownership over the surface or the subsurface of the moon or any areas thereof"; see also: Schladebach, 2020, pp. 53–54; Svec, 2022, p. 2; Angels, 2024; for a discussion on the principle of non-appropriation as a rule of *jus cogens*, see: Cepelka & Gilmour, 1970, p. 46.

80 Sinclair & Patton, 2024, pp. 1–4; American Society of International Law, 2014, pp. 1–16.

81 See also Article VI OST, which provides similar duties of supervision in the area of State responsibility in space: "States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty".

82 Sinclair & Patton, (2024), pp. 1–4.

over its space object (used by a non-State actor) fails to exercise such control, and if the non-State actor proceeds to use force against the assets of another State, the State of jurisdiction could be deemed either "unwilling or unable".[83] The "unwillingness or inability" of a State to supervise or control the non-State actor using its space objects for the use of force is then equated to the "unwillingness or inability" of a territorial State to prevent its territory from being used as a launching ground for non-State actor attacks. This could then trigger the right of self-defence of the victim State against the State of jurisdiction.[84] Such an understanding transposes, *mutatis mutandis*, the concept of non-State actor use of force from within the territory of an "unwilling or unable" State to the space domain while adjusting it to the realities of space. Focusing on the lack of jurisdictional supervision and control when applying the "unwilling or unable" doctrine in space would also reflect the 2016 White House "Legal and Policy Framework" on the use of force as far as the specific circumstances of space law permit.[85]

While the "unwilling or unable" legal framework of self-defence against attacks by non-State actors in space is still evolving, as shown above, the rules for attributing responsibility for the use of force to a State are more developed. Attribution of the use of force in space to a given State could be scrutinised based on three different tests: an institutional, a functional, and an agency test.[86] The institutional approach is reflected in Article 4 ARSIWA, which stipulates that the acts of *de jure* or *de facto* State organs are attributable to the State.[87] The functional test attributes the use of force to the State if an act has been committed by entities empowered by that State to undertake governmental authority as per Article 5 ARSIWA. Another option is the use of force exercised by an organ of another State placed at the disposal of the first State, in accordance with Article 6 ARSIWA. Lastly, the agency test, included in Article 8 ARSIWA, demonstrates that an *ad hoc* relationship between a State and a non-State actor performing an attack is sometimes required. In such a relationship, the State either instructs or directs the use of force by the non-State actor or exercises effective control over that non-State actor.[88]

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83 See, *mutatis mutandis*, Principle F of UNGA Resolution 37/92, *Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting*, 10 December 1982, UN Doc. A/AC.105/572/Rev.1, p. 39; see also Principle B providing for the general application of the OST, including its Article VI, to the subject matter of the Resolution; von der Dunk, 2011, p. 5.

84 Provided, again, that the standard of "willing or unable" actually applies as part of binding international law.

85 The White House, 2016, p. 10.

86 Tsagourias, 2016, p. 805.

87 Müller & San Martin, 2024, § 9.

88 *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Bosnia and Herzegovina v. Serbia and Montenegro), Judgment, I.C.J. Reports 2007 (*Application of the Convention on the Prevention and Punishment of the Crime of Genocide*), p. 43, §§ 398, 400, 402–406 and 413–414; *United States Diplomatic and Consular Staff in Tehran*, Judgment, I.C.J. Reports

For these tests enshrined in ARSIWA, the common thread is in linking the use of force to the responsibility of a State.[89] However, given their specific characteristics, the attribution of acts by private, non-State parties in space to a given State appears to bear its own distinct predicaments—even outside the "unwilling or unable" doctrine. In the area of State responsibility in space, the challenge is to address the interplay between the ARSIWA rules of attribution of conduct to a State and the strict responsibility regime of States otherwise present in the space domain—most notably via Article VI OST.

3.3. The Attribution of Acts in Space: The Strict Responsibility Regime of the OST

Even though the space domain was once predominantly reserved for States and State-funded public procurement schemes involving private entities, this has dramatically changed in recent years, with companies such as Blue Origin, SpaceX, and Virgin Galactic paving the way for the presence of private parties in space on their own accord.[90] Indeed, a surge may be observed in the development of satellite communications, space launches, and remote sensing capabilities by the private sector. It is expected that this trend will only increase in the future. In the USA, for example, the Department of Defense is increasingly reliant on commercial space systems, as they provide essential data for the armed forces.[91] Thus, the commercial, private space sector plays a crucial role in Space Domain Awareness (SDA), the main goal of which is to provide knowledge of the space environment, including all operations in a given region of space, as well as the location of space objects and their missions.[92] Nowadays, new technologies are being developed—among them weapons that could hit and destroy satellites in low-Earth and polar orbits—and private entities are at the forefront of such developments.[93] Precisely this new involvement of private parties is central to the question of attributing the use of force in space, as it is becoming increasingly clear that non-State actors may become capable of exercising force in the space domain.

Unlike the traditional rules on State responsibility, as encompassed in ARSIWA, Massingham and Stephens write that States appear unequivocally responsible for the actions undertaken by private parties in space.[94] This understanding may be derived from Article VI of the OST, which provides that the States Parties to the OST

1980, p. 3, § 58; *Military and Paramilitary Activities in and against Nicaragua*, p. 14, §§ 116–177 and Separate Opinion of Judge Ago, § 16.

89 As regards the exercise of attributing the reliance on force by non-State actors to a State on the premises of the Earth, this notion has been extensively covered. See, for example, Lanovoy, 2017, pp. 563–585; Sancin et al., 2009, pp. 185–187.

90 Holmes, 2024; European Space Policy Institute, 2017, p. 3; NASA, 2014, pp. 11, 17 and 105.

91 Wehtje, 2023, fn. 31–32.

92 *Ibid*.; Baker-McEvilly et al., 2024, p. 1.

93 Thiruvanathapuram, 2010.

94 Massingham & Stephens, 2022, p. 18.

> "shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth"

in the OST. Additionally, to erase any possibility of doubt, Article VI subjects the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, to authorisation and continued supervision by the appropriate State Party to the OST.[95]

With respect to Article VI and the question of attribution and responsibility, the reference to "non-governmental entities" in correlation with the imposition of responsibility upon a State for these private parties is of particular significance. According to the genesis of the OST, Article VI, with its provision on "non-governmental entities" and State responsibility, reflects a compromise reached between the Union of Soviet Socialist Republics (USSR) and the USA at the time of intense negotiation over the OST. While the USSR argued that only States might venture into space and engage in space activities, the USA, with notable foresight, sensed the important future role that private parties would play in the space domain.[96] The USA argued that States might wish to license a private firm to carry out certain activities in space.[97]

According to the drafting history of the OST, the main premise of Article VI was to establish a strict regime of responsibility for space-faring States for the activities of a non-State entity, such as private companies, when it comes to "national activities" in outer space. This strict regime provides for the responsibility of a State regardless of whether the State was aware of the activity in question.[98] The underlying reason for such a regime is the nature of space activities: since these activities are perceived as dangerous and capable of causing widespread damage, the desire was to avoid any a potential impunity for the damage caused, as well as to ensure that States act with due diligence.[99]

Unsurprisingly, the definition of what constitutes a "national activity" has been interpreted broadly. In 2013, the General Assembly proposed in its Resolution 68/74 titled

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95 Von der Dunk, 2011, pp. 5–8. Interestingly, according to Article VI OST, not only States but also international organisations bear the burden of responsibility for their activities carried out in outer space, including the moon and other celestial bodies. This provision may become particularly important for the EU in the development of its own space programme. See in this regard: European Union Agency for the Space Programme: 2024.

96 Committee on the Peaceful Uses of Outer Space Legal Sub-Committee, Summary Record of the Seventeenth Meeting, UN Doc A/AC.105/C.2/SR.17, 27 June 1963, p. 7; Massingham & Stephens, 2022, p. 18.

97 Committee on the Peaceful Uses of Outer Space Legal Sub-Committee, Record of the Twentieth Meeting, UN Doc A/AC.105/C.2/SR.20, 27 June 1963, p. 12.

98 Sancin, Grünfeld & Ramuš Cvetkovič, 2021, p. 50.

99 *Ibid*.; Massingham & Stephens, 2022, pp. 294–295.

Recommendations on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, that the notion should include all activities conducted by a State's nationals or from its national territory.[100] It is true that, according to the making of the OST, the main premise of Article VI was to establish a very strict regime of responsibility for space-faring States for a non-State entity—such as private companies—when it comes to "national activities" these entities undertake in outer space. Hence, there exists a clear obligation for States, as part of their duty of due diligence, to supervise private parties and authorise their activities, usually by way of domestic legislation, licensing schemes, and other requirements.[101] What remains to be addressed now is how the wording of Article VI OST could be applied in the event of private entities (i.e., non-State actors) using force in space.

3.4. Attribution of the Use of Force to a State in Space: The OST Strict Regime Versus ARSIWA

States are deemed responsible for the use of force by private parties if it can be concluded that the State exercised effective control over the non-State actor.[102] The threshold for what constitutes effective control is quite high. According to Article 8 ARSIWA, the standard is fulfilled and responsibility attributed to the State "if the person or group of persons is in fact acting on the instructions of, or under the direction or control of, that State in carrying out the conduct" concerned.[103] This understanding reflects customary international law.[104] In the *Jan de Nul* award, for example, rendered by the International Centre for Settlement of Investment Disputes (ICSID), the tribunal relied on the ICJ's reasoning in *Nicaragua v. USA.* The tribunal held that international jurisprudence prescribes a truly substantial benchmark for attributing the act of a person or entity to a State, as it requires two elements: (1) a general control of the State over the person or entity and (2) a specific control of that State over the given, concrete act for which attribution is sought.[105]

When comparing the strict responsibility regime of Article VI OST with ARSIWA, the main difference lies in the question of attribution.[106] Erhart and Boutovitskai submit that

[100] UNGA Resolution 68/74, 11 December 2013, § 2; Massingham & Stephens, 2022, pp. 293–294.

[101] Aoki, 2012, p. 397.

[102] Crawford, 2013, p. 141.

[103] ARSIWA, Article 8, Conduct directed or controlled by a State.

[104] Ryngaert, 2021, p. 171.

[105] *Jan de Nul N.V. and Dredging International N.V. v. Arab Republic of Egypt*, ICSID Case No. ARB/04/13, § 173; Boon, 2014, p. 19; *Military and Paramilitary Activities in and against Nicaragua*, p. 14, §§ 113–115.

[106] ARSIWA, Article 2: "There is an internationally wrongful act of a State when conduct consisting of an action or omission: (a) is attributable to the State under international law".

Article VI OST is clear in its wording and thus suggests a much lower threshold for attributing the responsibility for any space activities by private parties to a given State.[107] Thus, the main challenge is how to reconcile these two systems of norms. In other words, could Article VI OST perhaps be understood as *lex specialis* in relation to the general international law rules enshrined in ARSIWA? On the other hand, since Article III OST expressly references the UN Charter as well as international law more broadly, would it not be appropriate to extend the general international law rules in ARSIWA to the space domain?[108]

Three potential solutions may be discerned to answer these queries. The first rests on the premise that space law, especially Article VI OST, may be seen as a *lex specialis* norm in relation to ARSIWA. The second supports the view that the general rules of State responsibility in ARSIWA should apply, as they are secondary rules of international law, whereas Article VI OST encompasses primary rules.[109] The third approach offers a combined reading of Article VI OST and ARSIWA, based on a systematic interpretation of the norms contained therein, to preserve the purpose of the secondary law rules on State responsibility.

3.4.1. The Strict Responsibility Regime of Article VI OST as *Lex Specialis*

This approach rests on the premise that the ARSIWA rules on State responsibility were not intended to constitute a comprehensive code of secondary rules of international law.[110] According to Article 55 ARSIWA, the rules on attribution enshrined therein do not apply where, and to the extent that, the conditions for the existence of an internationally wrongful act or the content or implementation of the international responsibility of a State are governed by special rules of international law. Thus, if another, *lex specialis* norm governs the rules of attribution, that more specific regime prevails over the Articles in ARSIWA. Here, Article VI OST comes into play as a *lex specialis* provision in the field of attributing the acts of non-State actors in space to a given State.[111]

The argument offered in this regard is that the OST regime better accounts for the particularities of space activities carried out by non-State actors.[112] It is argued that Article VI OST was drafted to establish an over-arching responsibility for acts conducted by private parties in space, thus rendering any and all space activities the responsibility of at least one State.[113] The motive behind this normative choice of the OST drafters—to attribute all acts of non-State actors in space to a given State—was the inherently dan-

[107] See, e.g., Erhart & Boutovitskai, 2021, pp. 2–3.

[108] Breccia, 2016, pp. 20–21.

[109] Ramuš Cvetkovič, 2021, p. 19.

[110] See especially ARSIWA, Article 56, as well as Crawford, 2002, p. 879.

[111] Li, 2023, p. 4; Zorzetto, 2012, pp. 61–64.

[112] Koskenniemi, 2003, p. 10.

[113] Cheng, 1998, pp. 14–16; von der Dunk, 2011, p. 3.

gerous nature of space activities.[114] Consequently, a conflict of norms may be observed in the area of secondary rules of international law: between the rules in ARSIWA and the strict regime of Article VI OST.[115]

Given that Article VI OST provides for a specialised, strict regime of attribution compared to the general rules on attribution enshrined in ARSIWA, the former may prevail over the latter on the basis of its specificity: *lex specialis derogat legi generali* (Article 55 ARSIWA). Hence, the initial conflict between both systems of norms is resolved, with the ARSIWA rules on attribution giving way to Article VI OST when assessing the responsibility of States for the acts of non-State actors in space.

3.4.2. Article VI OST as a Rule of Primary International Law

The second approach, which enjoys less support, departs from the application of Article VI OST as a *lex specialis* rule of attribution. This second interpretation is founded on a narrow reading of Article VI OST. According to this view, the strict responsibility regime applies to a State's own actions or omissions. Consequently, a State is deemed responsible for the acts of private parties in space when it has itself failed to supervise such acts or to authorise them. Article VI OST is thus seen as a primary norm, not as a secondary norm of international law, merely demanding of States a heightened duty of supervision and due diligence *vis-à-vis* non-State actors.[116]

Since, in this scenario, the secondary law rules on attribution are not superseded by a *lex specialis* norm, the activities undertaken by private entities in space would continue to be attributed to a given State on the basis of the customary international law rules of ARSIWA.[117]

In this sense, Article VI OST enshrines a stricter primary law norm of due diligence for the State concerned in supervising the activities of non-State actors. Thus, a State would only be held responsible for the conduct of a non-State actor under its direction or control, or in a case of conduct adopted or acknowledged by the given State, if it failed to exercise diligent supervision.[118] Following this approach, there is no conflict between ARSIWA and the OST regarding the attribution of responsibility to a State for the use of force by private parties in space. Article VI OST reflects a norm of primary law, while leaving the secondary law norms of attribution of conduct and responsibility for the activities of non-State actors to ARSIWA.

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114 Marchisio, 2012, pp. 11 and 14–15.

115 Ramuš Cvetkovič, 2021, p. 20.

116 *Ibid*., p. 19; Grünfeld, 2022, p. 606; Arangio-Ruiz, 2017, pp. 126–127.

117 Dupuy, 2002, p. 464.

118 Grünfeld, 2022, p. 606.

3.4.3. Interpretation of "National Activities" in Light of the Purpose of ARSIWA

Provided that the standard of effective control in Article 8 ARSIWA was substituted by virtue of Article VI OST with a lower standard of attribution, classifying the use of force as a "national activity" would suffice—without needing to fulfil the effective control test—to attribute the use of force by non-State actors to a State. In a scenario where the threshold for attribution of responsibility for the use of force in space is easily met, States could be drawn much quicker into an armed conflict by virtue of non-State actors using force in space. Alternatively, imposing a standard that might be unrealistic risks reducing Article VI OST to near-irrelevance in a situation involving the use of force by non-State actors.[119]

For these reasons, the last option (which enjoys the least support of all three) rests on a teleological and systematic interpretation of Article VI OST and ARSIWA, with the aim of safeguarding the purpose of the secondary law rules on attributing the conduct of non-State actors to a State. According to the purpose of these rules, only acts that can be attached to a State on the basis of an objective (i.e., real) link—whether legal, functional, or factual—may be attributed to that State.[120] In this sense, it is important to recall the crucial role played by the principle of effectiveness in international law with regard to State responsibility. Based on the principle of effectiveness, when determining a State's responsibility for acts of non-State actors, it is necessary to establish the existence of a real link between the non-State actors performing the act and the State in question.[121]

The question then remains how to interpret the term "national activities" in Article VI OST to safeguard the purpose of the rules on State responsibility. Article VI OST can be linked to Article 8 ARSIWA in the case of non-State actors by interpreting the notion of "national activities" in the light of the customary international law standard of effective control. This interpretive option may be viable given the explicit invocation of general international law in Article III OST. Therefore, it is beyond doubt that a substantial part of international law and the UN Charter applies to human activities in space.[122] To incorporate fully the purpose of the customary international law rules on State responsibility into Article VI OST, and to ensure a systematic reading of the norms contained in ARSIWA and the OST via Article 31(3)(c) VCLT, the term "national activities" could be interpreted in line with the norm of Article 8 ARSIWA.

It is thus difficult to conceive that, e.g., the use of force stemming from a malfunction of a space object operated by non-State actors may be directly attributed to the respon-

[119] Ramey, 2018, pp. 230–231.

[120] De Frouville, 2013, p. 261.

[121] Report of the International Law Commission on the work of its fifty-third session, Commentaries on the draft ARSIWA, appears in the Yearbook of the International Law Commission, 2001, Vol. II, Part Two, as corrected, p. 47.

[122] Breccia, 2016, pp. 20–21.

sibility of a State in the absence or a "real link"—just as it is equally inconceivable to do so on Earth on the basis of Article 8 ARSIWA and the rules on State responsibility.[123] It follows from this reasoning, and from the purpose of the norm in Article 8 ARSIWA (to which Article III OST makes reference), that the use of force by private entities in space may be attributed to the State via Article VI OST if the force in question was instructed or exercised under the effective control of that State. Such a use of force may be deemed a "national activity" in the terms of Article VI OST, and for such a use of force the responsibility of the State arises, thus leading to a possible invocation of Article 51 of the UN Charter. In other words, if a State instructs or effectively controls the exercise of force by a non-State actor in space, the latter exercise may be deemed a "national activity" in terms of Article VI OST for which the State could bear international responsibility.

4. Concluding Remarks

With contemporary developments in space technology, it may be observed—worryingly—that the notion of acts of force being committed in space no longer appears quite so remote. The possibility of the use of force in space raises questions regarding the weaponisation of space and the corresponding norms on the responsibility of States for internationally wrongful acts they commit, either in their capacity as States or via non-State actors. While current prospects for space warfare mostly involve the destruction of unmanned military assets in space—usually satellites traversing the Earth's orbit[124]—further militarisation of space will, in all likelihood, follow. In the new space era, non-State actors will play a crucial role.

To address some aspects of the emerging challenges related to the weaponisation of space, this article focused on an issue of increasing importance in the space domain: the use of force—especially in the context of self-defence—and the question of attributing responsibility for the use of force by non-State actors in space to a given State.

With regard to the prospects for self-defence in the Earth's orbit, it has been shown that, by virtue of Article III OST, which cross-references the UN Charter, Article IV OST must be interpreted in connection with the Charter. Hence, an integrated interpretation of the "peaceful purposes" wording in Article IV OST with the norms on self-de-

[123] In *Military and Paramilitary Activities in and against Nicaragua*, the ICJ pronounced that for a "conduct to give rise to legal responsibility of the United States, it would in principle have to be proved that that State had effective control of the military or paramilitary operations in the course of which the alleged violations were committed": *Application of the Convention on the Prevention and Punishment of the Crime of Genocide*, p. 43, §§ 399–400; Breitwieser-Faria, 2021, pp. 84–85; de Frouville, 2013, p. 261; *Corfu Channel case*, Judgment of April 9th, 1949: I.C.J. Reports 1949, p. 18; see also Olleson, 2001, p. 40; Massingham & Stephens, 2022, p. 295.

[124] Ramey, 2018, p. 190.

fence in Article 51 of the UN Charter leads to the conclusion that the use of force in space is allowed when exercised in self-defence. The term "peaceful purposes" in Article IV OST is, therefore, to be understood in line with the prohibition of aggression (or "aggressive force") in customary international law and Article 2(4) of the UN Charter, rather than as a blanket prohibition of any acts of force in space.[125]

After concluding that the use of force in self-defence in space is permitted, the article turns to the rules of attribution for the use of force exercised by non-State actors in space to a State. Here, a distinction is drawn between two models: the traditional, ARSIWA model on attribution of acts to a State, and the doctrine of "unwilling or unable", which departs from the standard criterion of attribution. Regarding the latter doctrine, the "unwillingness or inability" of a spacefaring State to supervise or control a non-State actor using its space objects to exercise force in space could be linked to the "unwillingness or inability" of a territorial State to prevent its territory from being used as a launching ground for non-State actor attacks. This could then trigger the victim State's right of self-defence against the State of jurisdiction. Such an interpretation transposes, *mutatis mutandis*, the concept of non-State actor use of force from within the territory of an "unwilling or unable" State to the space domain, while adjusting it to the realities of space.

Departing from the developing "unwilling or unable" doctrine and focusing on the much more developed and accepted model of attribution of responsibility for acts undertaken by non-State actors to a State, the article examined the interplay between ARSIWA and the strict regime of Article VI OST. Three potential solutions were assessed to address the apparent conflict between these two sets of attribution of conduct rules. The first option rests on the premise that space law, particularly Article VI OST, may be regarded as a *lex specialis* system in relation to ARSIWA. By virtue of Article 55 ARSIWA, the rules on attribution in Article VI OST could thus supersede the norms of ARSIWA, in their capacity as a more specific set of secondary law rules. The second solution supports the view that the general rules of State responsibility in ARSIWA should apply as secondary rules of international law, whereas Article VI OST encompasses primary rules. Here, Article VI OST is understood as reflecting a high due diligence obligation of spacefaring States—a primary norm—rather than constituting a *lex specialis* set of secondary rules. The third solution is founded on a combined reading of Article VI OST and ARSIWA via a systematic interpretation of the norms they contain, with a view to preserving the purpose of the secondary law rules on State responsibility. For this latter option, it is crucial to determine whether the use of force by non-State actors in space is always deemed a "national activity" within the meaning of Article VI OST. In light of the rules on State responsibility for internationally wrongful acts and relevant international jurisprudence, it was submitted that the use of force by private entities in space could be

[125] Buchan, 2023.

attributed to a State via Article VI OST only if the force in question was either instructed by or exercised under the effective control of that spacefaring State.

Of the three options presented, the *lex specialis* argument appears the most convincing and enjoys the broadest support in literature. It follows from the inherently hazardous nature of space activities that the OST purposefully sets out a specific system of strict responsibility in Article VI to ensure not only that States actively supervise non-State actors under their jurisdiction, but also to prevent impunity for damage caused in space. This creates a distinct set of secondary law norms intended to regulate the consequences of the acts and omissions of spacefaring States in space. Thus, the ARSIWA rules on State responsibility must give way to the strict regime of Article VI OST when assessing the responsibility of States for acts committed by non-State actors in space, including acts involving the use of force. By virtue of this, a more specific system of attribution rules supersedes a more general one.

References

Akande, D. & Milanovic, M. (2015) 'The Constructive Ambiguity of the Security Council's ISIL Resolution', *EJIL:Talk!*, 21 November 2015.

American Society of International Law (2014), 'Jurisdictional, Preliminary, and Procedural Concerns' in: Amann, D. (ed.) (2014) *Benchbook on International Law*. § II.A.

Angels (2024) *Space Law Fundamentals*, <https://spacelaws.com/space-law-fundamentals/> (accessed 19 October 2024).

Antonopoulos, C. (2008) 'Force by Armed Groups as Armed Attack and the Broadening of Self-Defence', *Netherlands International Law Review* 55(2), pp. 159–180.

Aoki, S. (2012) 'The Standard of Due Diligence in Operating a Space Object', *Proceedings of the International Institute of Space Law* 2012, pp. 392–405.

Arangio-Ruiz, G. (2017) 'State Responsibility Revisited: The Factual Nature of the Attribution of Conduct to the State', *Quaderni della Rivista di diritto internazionale* Volume C – 2017, pp. 1–162.

Baker-McEvilly, B. et al. (2024) 'A comprehensive review on Cislunar expansion and space domain awareness', *Progress in Aerospace Sciences* 147, pp. 1–16.

Bartóki-Gönczy, B. & Nagy, B. (2023) 'The Artemis Accords', *International Legal Materials* 62(5), pp. 888–898.

BBC (2019) *Trump: "Space is the world's newest war-fighting domain"*, <https://www.bbc.com/news/av/world-us-canada-50875940> (accessed 27 August 2024).

Bethlehem, D. (2012) 'Principles Relevant to the Scope of a State's Right of Self-Defense Against an Imminent or Actual Armed Attack by Nonstate Actors', *American Journal of International Law* 106(4), pp. 770–777.

Boon, K.E. (2014) 'Are Control Tests Fit For the Future? The Slippage Problem in Attribution Doctrines', *Melbourne Journal of International Law* 15, pp. 1–48.

Boothby, B. (2017) 'Space Weapons and the Law', *International Law Studies* 93, pp. 179–214.

Borgen, C.J. (2020) 'Space Power, Space Force, and Space Law', *Lieber Institute – West Point, Articles of War*, 10 September 2020.

Breccia, P. (2016) 'Article III of Outer Space Treaty and Its Relevance in the International Space Legal Framework', *Proceedings of the International Institute of Space Law* 2016, pp. 17–35.

Breitwieser-Faria, Y. (2021) 'State Responsibility for Breaches of Prevention Obligations: Is the Distinction between Obligations of Conduct and of Result Useful?', *Australian International Law Journal* 28, pp. 75–90.

Brunnée, J. & Toope, S.J. (2018) 'Self-Defence Against Non-State Actors: Are Powerful States Willing But Unable to Change International Law?', *The International and Comparative Law Quarterly* 67(2), pp. 263–286.

Buchan, R. (2023) 'Self-Defence as an Exception to the Principle of Non-Use of Force: Debunking the Myth', *EJIL:Talk!*, 29 November 2023.

Cepelka, C. & Gilmour, J.H.C. (1970) 'The Application of General International Law in Outer Space', *Journal of Air Law and Commerce*, 36(1), pp. 30–49.

Cheng, B. (1998) 'Article VI of the 1967 Space Treaty Revisited: "International Responsibility", "National Activity", and "The Appropriate State"', *Journal of Space Law* 26, pp. 7–32.

Cheng, B. (2000) 'Properly Speaking, Only Celestial Bodies Have Been Reserved for Use Exclusively for Peaceful (Non-Military) Purposes, but Not Outer Void Space', *International Law Studies* 75, pp. 81–117.

China Aerospace Studies Institute (2024) *PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces*. United States of America: China Aerospace Studies Institute.

Corten, O. (2024) 'The 'Unwilling or Unable' Test: Has It Been, and Could It Be, Accepted?', *Leiden Journal of International Law* 29, pp. 777–799.

Crawford, J. (2002) 'The ILC's Articles on Responsibility of States for Internationally Wrongful Acts: A Retrospect', *American Journal of International Law* 96(4), pp. 874–890.

Crawford, J. (2013) 'Direction or control by the State' in: *State Responsibility: The General Part*. Cambridge: Cambridge University Press, pp. 141–165.

Cross, M.K.D. (2021) "United Space in Europe'? The European Space Agency and the EU Space Program', *European Foreign Affairs Review* 26, pp. 31–46.

d'Aspremont, J. (2012) 'The Systemic Integration of International Law by Domestic Courts: Domestic Judges as Architects of the Consistency of the International Legal Order' in: Nollkaemper, A & Fauchald, O. K. (eds.) (2012) *The Practice of International and National Courts and the (De-)Fragmentation of International Law*. Hart, pp. 141–165.

de Frouville, O. (2013) 'Attribution of Conduct to the State: Private Individuals' in Crawford, J. et al. (eds.) (2013) *The Law of International Responsibility*. Oxford: Oxford University Press, pp. 257–280.

Delegation of the European Union to the United Nations in New York (2023) *EU Statement – UN General Assembly 1st Committee: Outer Space*, <https://www.eeas.europa.eu/delegations/un-new-york/eu-statement-%E2%80%93-un-general-assembly-1st-committee-outer-space_en?s=63> (accessed 27 August 2024).

Dembling, P.G. & Arons, D.M. (1967) 'The Evolution of the Outer Space Treaty', *Journal of Air Law and Commerce* 33, pp. 419–456.

Dupuy, P.-M. (2002) *Droit International Public*. Paris: Dalloz.

Erhart, L. & Boutovitskai, M. (2021) 'Transforming Article VI of the Outer Space Treaty into an Effective Mechanism of Space Debris Mitigation' in: Flohrer, T., Lemmens, S. & Schmitz, F. (eds.) (2021) *Proc. 8th European Conference on Space Debris (virtual), Darmstadt, Germany, 20–23 April 2021*. ESA Space Debris Office, pp. 1–15.

European Space Policy Institute (2017) 'The Rise of Private Actors in the Space Sector', July 2017, pp. 1–7.

European Union Agency for the Space Programme (2024) *The EU Space Programme*, <https://www.euspa.europa.eu/eu-space-programme> (accessed 7 September 2024).

Farhang, C. (2015) 'Self-Defence as a Circumstance Precluding the Wrongfulness of the Use of Force', *Utrecht Law Review* 11(3), pp. 1–18.

Federal Aviation Administration (2023) *Commercial Space Data*, <https://www.faa.gov/data_research/commercial_space_data> (accessed 6 September 2024).

Friman, L.J. (2005) 'War and Peace in Outer Space: A Review of the Legality of the Weaponization of Outer Space in the Light of the Prohibition on Non-Peaceful Purposes', *FYBIL* 16, pp. 285–312.

Gardiner, R. (2010) *Treaty Interpretation*. Oxford: Oxford University Press.

Gleason, M.P. & Hays, P.L. (2020) 'A Roadmap for Assessing Space Weapons', *Center for Space Policy and Strategy*, October 2020, pp. 1–13.

Grünfeld, K. (2022) 'NewSpace: The Star Wars Soldier of the Future?', *Proceedings of the International Institute of Space Law* 2022, pp. 599–611.

Hadley, G. & Gordon, C. (2024) *Russia's New Counterspace Weapon Is in the Same Orbit as a US Satellite*, <https://www.airandspaceforces.com/russia-counterspace-weapon-near-us-satellite/> (accessed 27 August 2024).

Hakimi, M. (2015) 'Defensive Force against Non-State Actors: The State of Play', *International Law Studies* 91, pp. 2–31.

Harris, A.W. & D'Abramo, G. (2015) 'The population of near-Earth asteroids', *Icarus* 257, pp. 302–312.

Harrison, T. (2020) *International Perspectives on Space Weapons*. Washington: CSIS.

Hawking, S. (2016) *A Brief History of Time – From the Big Bang to the Black Holes*. London: Transworld Publishers.

Holmes, O. (2024) *Polaris Dawn astronauts complete first commercial spacewalk*, <https://www.theguardian.com/science/2024/sep/12/polaris-dawn-astronauts-complete-first-commercial-spacewalk-spacex> (accessed 15 September 2024).

Indo-Pacific Defense Forum (2023) *Sovereignty in Space – No one can own it, which drives competition, cooperation*, <https://ipdefenseforum.com/2023/03/sovereignty-in-space/> (accessed 19 October 2024).

Jordan, L.V. (2024) '"Unwilling or Unable"', *International Law Studies* 103, pp. 151–193.

Korošec, T. & Tekavčič Veber, M. (2016) 'Pravica do samoobrambe zoper nedržavne akterje v luči boja proti terorizmu', *Zbornik znanstvenih razprav* 76, pp. 41–68.

Koskenniemi, M. (2003) 'The function and scope of the *lex specialis* rule and the question of 'self-contained regimes': An outline', *International Law Commission, Study Group on Fragmentation*, p. 1–10.

Krepon, M. & Clary, C. (2003) *Space Assurance or Space Dominance?: The Case Against Weaponizing Space.* Washington: The Henry L. Stimson Center.

Kreß, C. (2016) 'The State Conduct Element' in: Kreß, C. & Barriga, S. (eds.) (2016) *The Crime of Aggression: A Commentary*. Cambridge: Cambridge University Press, pp. 412–564.

Kretzmer, D. (2013) 'The Inherent Right to Self Defence and Proportionality in *Jus Ad Bellum*', *European Journal of International Law* 24(1), pp. 235–282.

Kütt, M. & Steffek, J. (2015) 'Comprehensive Prohibition of Nuclear Weapons: An Emerging International Norm?', *Nonproliferation Review* 22, pp. 401–420.

Lanovoy, V. (2017) 'The Use of Force by Non-State Actors and the Limits of Attribution of Conduct', *European Journal of International Law* 28(2), pp. 563–585.

Lee, R.J. (2003) 'The *Jus Ad Bellum in Spatialis*: The Exact Content and Practical Implications of the Law on the Use of Force in Outer Space', *Journal of Space Law* 29(1-2), pp. 93–120.

Lee, R.L. (2004) 'Article II of the Outer Space Treaty: Prohibition of State Sovereignty, Private Property Rights, or Both?', *Australian International Law Journal* 11, pp. 128–142.

Leiden Policy Recommendations on Counter-Terrorism and International Law (2010), *Netherlands International Law Review* 57(3), pp. 531–550.

Li, D. (2023) 'Cyber-attacks on Space Activities: Revisiting the Responsibility Regime of Article VI of the Outer Space Treaty', *Space Policy* 63, pp. 1–13.

Marchisio, S. (2012) 'The Legal Dimension of the Sustainability of Outer Space Activities: The Draft International Code of Conduct on Outer Space Activities', *Proceedings of the International Institute of Space Law* 2012, pp. 3–22.

Martinez, P. et al. (2019) 'Reflections on the 50th Anniversary of the Outer Space Treaty, UNISPACE+50, and Prospects for the Future of Global Space Governance', *Space Policy* 47, pp. 28–33.

Massingham, E. & Stephens, D. (2022) 'Autonomous Systems, Private Actors, Outer Space and War: Lessons for Addressing Accountability Concerns in Uncertain Legal Environments', *Melbourne Journal of International Law* 23, pp. 276–305.

Merkouris, P. (2017) 'Interpreting the Customary Rules on Interpretation', *International Community Law Review* 19, pp. 126–155.

Müller, D. & San Martin, I. (2024) 'Attribution', *Jus Mundi*, February 2024.

NASA (2014) *Commercial Orbital Transportation Services: A New Era in Spaceflight*. Nasa.

O'Connell, M.E., Tams, C.J. & Tladi, D. (2019) *Self-Defence Against Non-State Actors*. Cambridge: Cambridge University Press.

O'Connell, M. E. (2013) 'Dangerous Departures', *American Journal of International Law* 107(2), pp. 380–386.

Ohlin, J.D. (2014) 'The Unwilling or Unable Doctrine Comes to Life', *Opinio Juris*, 23 September 2014.

Olleson, S. (2001) 'The Impact of the ILC's Articles on Responsibility of States for Internationally Wrongful Acts', *British Institute of International and Comparative Law*, Preliminary Draft 2001, pp. 1–289.

Orbiting now (2024) *Active Satellite Orbit Data*, <https://orbit.ing-now.com/> (accessed 26 October 2024).

Paddeu, F.I. (2017) 'Use of Force against Non-State Actors and the Circumstance Precluding Wrongfulness of Self-Defence', *University of Cambridge Repository* 2017, pp. 1–28.

Pop, V. (2000) 'Appropriation in outer space: the relationship between land ownership and sovereignty on the celestial bodies', *Space Policy* 16, pp. 275–282.

Ramey, R.A. (2018) 'Armed Conflict on the Final Frontier: The Law of War in Space' in: von der Dunk, F.G. (ed.) (2018) *International Space Law*. Cheltenham (UK) & Northampton (USA): Edward Elgar Publishing Limited, pp. 188–345.

Ramuš Cvetkovič, I. (2021) *Space Law as Lex Specialis to International Law*. Master Thesis, University of Ljubljana.

Ramuš Cvetkovič, I. (2024) 'Two sides of the same coin? Examining the interrelation between the proposed new human right and the law governing outer space', *Digital War* 5, pp. 59–65.

Report of the International Law Commission on the work of its fifty-third session: Commentaries on the draft ARSIWA (2001), *Yearbook of the International Law Commission*, 2001, Vol. II, Part Two, pp. 31–143.

Ruys, T. & Verhoeven, S. (2005) 'Attacks by Private Actors and the Right of Self-Defence', *Journal of Conflict & Security Law* 10(3), pp. 289–320.

Ryngaert, C. (2021) 'Attributing Conduct in the Law of State Responsibility: Lessons from Dutch Courts Applying the Control Standard in the Context of International Military Operations', *Utrecht Journal of International and European Law* 36(2), pp. 170–180.

Sancin, V., et al. (2009) *Mednarodno pravo oboroženih spopadov*. Ljubljana: Poveljstvo za doktrino, razvoj, izobraževanje in usposabljanje.

Sancin, V., Grünfeld, K. & Ramuš Cvetkovič, I. (2021) 'Sodobni izzivi mednarodnopravnega urejanja vesolja', *Pravnik* 138(1-2), pp. 45–84.

Sandeepa, B. & Kiran, M.V. (2009) 'Anti Satellite Missile Testing: A Challenge to Article IV of the Outer Space Treaty', *NUJS Law Review* 2(2), pp. 205–212.

Santos, R. (2021) *Yes, We Can Weaponize an Asteroid*, <https://thedebrief.org/asteroid-weapon/> (accessed 27 August 2024).

Savoy, C.M. & Staguhn, J. (2022) 'Global Development in an Era of Great Power Competition', *CSIS Briefs*, March 2022, pp. 1–12.

Schladebach, M. (2008) 'Schwerpunktbereich – Einführung in das Weltraumrecht', *Juristische Schulung* 3, pp. 217–222.

Schladebach, M. (2020) *Weltraumrecht*. Tübingen: Mohr Siebeck.

Sharma, H. & Singh, P. (2012) 'Territorial Sovereignty in the Outerspace: Spatial Issues' in: Singh, R. et al. (eds.) (2012) *Current Developments in Air and Space Law*. Delhi: National Law University Press, pp. 272–282.

Shaw, M.N. (2017) *International Law*. Cambridge: Cambridge University Press.

Sinclair, J. & Patton, D. (2024) 'SPACE and the Return of Rome', *Journal of Space Safety Engineering* 2024, pp. 1–6.

Smith, W. A. (2021) 'Using the Artemis Accords to Build Customary International Law: A Vision for a U.S.-Centric Good Governance Regime in Outer Space', *Journal of Air Law and Commerce* 86(4), pp. 661–700.

Starski, P. (2015) 'Right to Self-Defense, Attribution and the Non-State Actor – Birth of the "Unable or Unwilling" Standard?', *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 75, pp. 455–501.

Stefoudi, D. (2024) 'EU Space Law – Three reasons against, three reasons in favour', *EJIL:Talk!*, 29 April 2024.

Su, J. (2010) 'Use of Outer Space for Peaceful Purposes: Non-Militarization, Non-Aggression and Prevention of Weaponization', *Journal of Space Law* 36(1), pp. 253–272.

Svec, M. (2022) 'Outer Space, an Area Recognised as Res Communis Omnium: Limits of National Space Mining Law', *Space Policy* 60, pp. 1–7.

Tepper, E. (2024) 'The Laws of Space Warfare: A Tale of Non-Binding International Agreements', *Maryland Law Review* 83(2), pp. 458–517.

The White House (2002) *The 2002 National Security Strategy*, <https://georgewbush-whitehouse.archives.gov/nsc/nss/2002/> (accessed 19 October 2024).

The White House (2016) *Report on the Legal and Policy Frameworks Guiding the United States' Use of Military Force and Related National Security Operations*. Washington: The White House.

Thiruvanathapuram (2010) *India readying weapon to destroy enemy satellites: Saraswat*, <https://indianexpress.com/article/india/latest-news/india-readying-weapon-to-destroy-enemy-satellites-saraswat/> (accessed 7 September 2024).

Tladi, D. (2013) 'The Nonconsenting Innocent State: The Problem with Bethlehem's Principle 12', *American Journal of International Law* 107(3), pp. 570–576.

Tripathi, P.N. (2013) 'Weaponisation and Militarisation of Space', *CLAWS Journal*, Winter 2013, pp. 188–200.

Tsagourias, N. (2016) 'Self-Defence against Non-state Actors: The Interaction between Self-Defence as a Primary Rule and Self-Defence as a Secondary Rule', *Leiden Journal of International Law* 29, pp. 801–825.

United States Space Force (2024) *Reoptimizing for Great Power Competition*, <https://www.spaceforce.mil/reoptimization-for-great-power-competition> (accessed 27 August 2024). van Steenberghe, R. (2015) 'From Passive Consent to Self-Defence after the Syrian Protest against the US-led Coalition', *EJIL:Talk!*, 23 October 2015.

von der Dunk, F.G. (2011) 'The Origins of Authorisation: Article VI of the Outer Space Treaty and International Space Law', *Space, Cyber, and Telecommunications Law Program Faculty Publications* 69, pp. 1–19.

Wehtje, B. (2023) 'Increased Militarisation of Space – A New Realm of Security', *Beyond the Horizon*, 6 June 2023.

Williams, G. D. (2013), 'Piercing the Shield of Sovereignty: An Assessment of the Legal Status of the 'Unwilling or Unable' Test', *UNSW Law Journal* 36(2), pp. 619–641.

Wilmshurst, E. (2005) *Principles of International Law on the Use of Force by States in Self-Defence*. Chatham House, The Royal Institute of International Affairs.

Wilmshurst, E. & Wood, M. (2013) 'Self-Defense Against Nonstate Actors: Reflections on the "Bethlehem Principles"', *American Journal of International Law* 107(2), pp. 390–395.

Wilmshurst, E. (2006) 'The Chatham House Principles of International Law on the Use of Force in Self-Defence', *International & Comparative Law Quarterly* 55(4), pp. 963–972.

Wood, M. (2013) 'International Law and the Use of Force: What Happens in Practice?', *Indian Journal of International Law* 53, pp. 345–367.

Wright, D. et al. (2006) 'An Introduction to Space Weapons', *Ensuring Space Security*, Fact Sheet No. 1, pp. 1–2.

Yun, Z. (2018) 'Space Commercialization and the Development of Space Law', *Oxford Research Encyclopedia of Planetary Science, 30 July 2018,* pp. 1–20.

Ziemblicki, B. & Oralova, Y. (2021) 'Private Entities in Outer Space Activities: Liability Regime Reconsidered', *Space Policy* 56, pp. 1–11.

Zorzetto, S. (2012) 'The *Lex Specialis* Principle and its Uses in Legal Argumentation. An Analytical Inquire', *Eunomía. Revista en Cultura de la Legalidad* 3(2012-2013), pp. 61–87.

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Anže Mediževec

Pravica do samoobrambe v Zemljini orbiti

Z razvojem vesoljske tehnologije so v vesolju poleg držav čedalje bolj prisotni tudi nedržavni akterji. Njihova vse večja prisotnost odpira številna pravna vprašanja, tudi v zvezi z uporabo sile, zlasti v okviru pravice do samoobrambe. Prvi cilj tega članka je pojasniti pravno podlago za uporabo sile pri izvajanju samoobrambe v vesolju, zlasti v Zemljini orbiti. Drugi cilj je prispevati k pravnemu okviru, kako lahko države izvajajo samoobrambo pred napadi nedržavnih akterjev v vesolju. Avtor razlikuje med pravili o pripisovanju uporabe sile državi in doktrino nepripravljenosti ali nezmožnosti države »gostiteljice«. Predlaga, da se slednja lahko smiselno prenese na področje vesolja s pomočjo rekonceptualizacije pojma »ozemlja« države od paradigme državne suverenosti v smeri državne jurisdikcije. Nadalje avtor na področju pravil o pripisovanju ravnanja državi primerja določbe v Členih o odgovornosti držav za mednarodno protipravna dejanja (ARSIWA) o odgovornosti države in režim objektivne odgovornosti iz Pogodbe o vesolju (OST). Njegov namen je pojasniti, kateri sistem pravil naj se uporablja pri obravnavi vprašanja odgovornosti države za uporabo sile s strani nedržavnih akterjev v vesolju. Glede tega ponudi tri rešitve. Prva temelji na predpostavki, da se pravo vesolja, konkretno VI. člen OST, lahko obravnava kot *lex specialis* v razmerju do sistema pravil po ARSIWA. Druga podpira stališče, da bi se morala uporabljati splošna pravila o odgovornosti držav iz ARSIWA, saj gre za sekundarna pravila mednarodnega prava, VI. člen OST pa zajema primarna pravila. Tretji pristop ponuja kombinirano razlago VI. člena OST in ARSIWA, ki temelji na sistematični razlagi tam vsebovanih norm, da se ohrani namen sekundarnih pravil mednarodnega prava o odgovornosti držav.

Ključne besede

Pogodba o vesolju (OST), IV. člen OST, VI. člen OST, miroljubni nameni, nacionalne dejavnosti, samoobramba v vesolju, režim objektivne odgovornosti.

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Anže Mediževec

The Right of Self-defence in the Earth's Orbit

Abstract

The increasing presence of non-State actors in space raises a plethora of legal questions, including those related to the use of force, especially in the context of the right of self-defence. The first aim of this article is to explain the legal basis for resorting to force in the exercise of self-defence in space, specifically in the Earth's orbit. The second goal is to contribute to the legal framework concerning how States may exercise self-defence against attacks committed by non-State actors in space. In this regard, the author distinguishes between the rules of attribution of the use of force to a State and the "unwilling or unable" doctrine. It is suggested that the latter may be transposed into the space domain, *mutatis mutandis*, by a re-conceptualisation of the notion of a State's "territory", shifting from its sovereignty-based foundation towards State jurisdiction. Further on, in the realm of the rules of attribution of conduct to a State, the author compares the ARSIWA rules of State responsibility with the strict responsibility regime of the Outer Space Treaty (OST), to clarify which system applies when addressing State responsibility for the use of force by non-State actors in space. Three solutions are offered in this regard. The first rests on the premise that space law, specifically Article VI OST, may be seen as *lex specialis* in relation to ARSIWA. The second supports the view that the general rules of State responsibility in ARSIWA should apply, as they are secondary rules of international law, whereas Article VI OST encompasses primary rules. The third approach offers a combined reading of Article VI OST and ARSIWA, based on a systematic interpretation of the norms contained therein, to preserve the purpose of the secondary rules on State responsibility.

Key words

Outer Space Treaty, Article IV OST, Article VI OST, Peaceful Purposes, National Activities, Self-defence in Space, Strict Responsibility Regime.