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NEUTRALITY LAW AND SPACE ASSETS:
A FRAMEWORK FOR PROTECTION
OR A SOURCE OF ESCALATION?

INTRODUCTION

The law of neutrality merits renewed attention in an era marked by the Security Council's paralysis and broader institutional dysfunction within the United Nations. This century-old framework, which Stephen Neff describes as uniting “the idealism of the pacifist with the sharp commercial eye of the arm dealer”,¹ has traditionally regulated terrestrial and maritime warfare. Yet, as contemporary armed conflicts increasingly involve outer space, a critical question arises: Can neutrality law effectively protect space assets and stabilise conflict dynamics, or does its application to this novel domain risk generating legal ambiguity and escalation?

Through centuries of State practice, the law of neutrality emerged and came to be codified in the 1907 Hague Convention (V) respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land and in the Hague Convention (XIII) concerning the Rights and Duties of Neutral Powers in Naval War.² These two texts constitute to date “the main body of the law of neutrality and codify to a large extent the applicable rights and obligations of neutral states in conflict”.³

The law of neutrality has formed a structural component of the international legal order governing armed conflict. Though modified, many references remain to this regime that delineate the legal boundaries between those States engaged in hostilities, the belligerents, and those that abstain,

¹ NEFF 2022: 3–5.

² SCHINDLER 1991: 225.

³ SEGER 2014: 249.

the neutrals.⁴ This binary distinction, codified in the Hague Conventions of 1907, is a matter of legal status: in the classical view, once an international armed conflict arises,⁵ every third State is presumed neutral unless and until it crosses the threshold of participation.⁶

Historically, the notion of war was conceived as a highly formalised legal relationship between belligerents. Under this classical framework, a state of war was exclusively established by a formal declaration of war or the expiry of a conditional ultimatum, and it could only be definitively terminated by the entry into force of a peace treaty.⁷ However, contemporary State practice and the evolution of international humanitarian law have significantly diminished the relevance of these formal prerequisites. Today, a formal declaration of war is no longer strictly necessary to trigger the application of the laws of armed conflict.⁸ Consequently, neutrality, as understood in its traditional sense, is a legal status arising automatically upon the factual outbreak of an international armed conflict, regardless of whether the belligerents have formally declared war. Just as this status arises automatically, it naturally concludes under two primary conditions: either with the overall termination of the international armed conflict; or by the neutral State crossing the threshold of participation and becoming a belligerent in that specific conflict.⁹

Once the conflict arises, neutrality faces a fundamental epistemological challenge: the absence of a universally accepted definition of what it means to be a 'neutral State'. Although the term appears in the conventions and is invoked in State practice, its meaning can only be inferred. It is commonly understood as referring to a State "not assisting or actively taking the side

⁴ BOTHE 2008: 571

⁵ International Criminal Tribunal for the Former Yugoslavia, *Prosecutor v. Tadić*, Case No. IT-94-1-AR72, 2 October 1995: "An armed conflict exists whenever there is a resort to armed force between states."

⁶ UPCHER 2020: 89.

⁷ "In fact, international law was premised on the dichotomy between law of peace and law of war, the latter brought about by the establishment of a formal state of war" (ANTONOPOULOS 2022: 17).

⁸ SEGER 2014: 248–249; BOTHE 2008: 571–582; UPCHER 2020: 46–54.

⁹ BOTHE 2008: 557–559; ANTONOPOULOS 2022: 22–23.

of either of two belligerent States or groups of States in a war; taking neither side nor view in a dispute, disagreement, or controversy”,¹⁰ a State abstaining from participation in the armed conflict.¹¹ Neutrals “do not take part in a war between other states”¹² and are described as “any state not party to the conflict”.¹³ Within this legal framework, the obligations of belligerents apply *ratione personae* to those States participating in hostilities, whether officially or *de facto*. Conversely, they also apply to neutral States, those abstaining from participation, who are themselves bound by specific duties under the law of neutrality.

The Hague Conventions V and XIII were soon tested by the First and Second World Wars, which revealed the fragility of neutrality law in the face of total war.¹⁴ The subsequent emergence of collective security further transformed the legal framework governing neutrality.¹⁵ The prohibition of the use of force under Article 2(4) of the UN Charter, in particular, considerably limited the range of countermeasures that belligerents or neutral States could lawfully adopt in response to alleged violations of neutral duties.¹⁶

As James Upcher has observed, neutrality “strikes many today as outmoded and obsolete, of a different era of international law: its rules the unstable product of compromise; in its essence incompatible, indeed utterly irreconcilable, with the prohibition on recourse to force and the development of collective security”.¹⁷ Nevertheless, both proponents of a more flexible, optional form of neutrality and those adhering to a traditional

¹⁰ VERZIJL 1979: 12.

¹¹ HEINTSCHEL VON HEINEGG 2017: 536. “Un État qui n’est pas partie à un conflit armé est un État neutre” (BETTATI 1994: 288).

¹² OPPENHEIM 1952: 316.

¹³ International Committee of the Red Cross 1995: Section V, definitions.

¹⁴ SCHINDLER 1991: 225.

¹⁵ SCHINDLER 1991: 225.

¹⁶ For a recent reasoning as to why the law of neutrality cannot justify the use of force, see INGBER 2025: 438–492. “Countermeasures shall not affect: (a) the obligation to refrain from the threat or use of force as embodied in the Charter of the United Nations” [International Law Commission 2001: Article 50(1)(a)].

¹⁷ UPCHER 2020: 1.

approach agree on one point: although modified, the law of neutrality has not disappeared.¹⁸

Neutrality functions as a subsidiary mechanism enabling States to abstain from participation in hostilities while maintaining relations, notably commercial relations, with the belligerents.¹⁹ Customary international law continues to uphold core principles of neutrality; abstention, impartiality and the inviolability of neutral territory.²⁰ In this respect, while it may no longer be the cornerstone of the international law of armed conflict, neutrality regains significance in contexts of increasing Security Council deadlock. Moreover, the Charter's prohibition of the threat or use of force has not brought an end to armed conflicts, and the law of neutrality remains relevant for regulating them and preventing neutral States from being inadvertently drawn into hostilities.²¹

At this stage, and to fully grasp the epistemological challenge, it is necessary to distinguish the specific legal framework of this study from related, yet distinct, concepts. This article focuses primarily on ordinary or belligerent neutrality; the *ad hoc* legal status that arises for a third State upon the outbreak of a specific international armed conflict, strictly governing its rights and duties vis-à-vis the active belligerents. This temporary wartime status differs fundamentally from permanent neutrality, a continuous legal regime established by treaty or domestic law obligating a State to remain neutral in all future conflicts and to eschew binding peacetime alliances, the State should remain neutral under all circumstances unless its neutral status is violated.²² Furthermore, it must be separated from non-alignment which characterises a State's peacetime refusal to join major geopolitical blocs. It must also be distinguished from non-belligerency, which is a term

¹⁸ For a panorama of the different views see ANTONOPOULOS 2022: 8–57; UPCHER 2020: 9–37; SCHMID 2024: 1044–1064.

¹⁹ NEFF 2022.

²⁰ ICJ 1996, *Advisory Opinion on the Threat or Use of Nuclear Weapons*, 89; also see UPCHER 2020: 70–124.

²¹ See HEINTSCHEL VON HEINEGG 2017: 528.

²² For an overview of the different conceptions of permanent neutrality see ANTONOPOULOS 2022: 12–13.

used when neutrality is considered optional as this stance allows States to not take part in an armed conflict but to favour a belligerent,²³ it is viewed as an intermediate status between neutrality and belligerency though it is not officially recognised in international law.²⁴ Clarifying these distinctions ensures that the application of neutrality law to the space domain is understood strictly through the lens of binding wartime legal obligations.

Another preliminary discussion indeed regards the character of neutrality. Neutrality, as understood in its traditional sense, is not an optional posture but a legal status arising automatically upon the outbreak of an international armed conflict.²⁵ However, recent scholarship has engaged in a profound debate on whether neutrality remains obligatory or has become optional under the UN Charter. Evelyne Schmid argues that neutrality is now 'optional but not qualified', allowing States to choose non-belligerency while preserving the integrity of neutrality for those who opt for it.²⁶ The classical view, on the other hand, does not overlook the erosion of compliance with neutral duties but considers the position of non-belligerency a form of non-compliance.²⁷

This article proceeds from the assumption that neutrality remains obligatory for States that are not parties to an armed conflict, unless and until collective measures are taken under Chapter VII of the UN Charter. This working assumption is adopted not to foreclose debate over neutrality's character, but because it offers the most analytically productive framework for examining space assets and the risks associated with them. If neutrality arises automatically, the scope of neutral obligations, particularly regarding dual-use satellites and private operators, becomes an immediate concern for all non-belligerent States, regardless of their declared position. This assumption thus enables the analysis to focus on the substantive question that matters most in the space domain: how to use neutrality to preserve space

²³ UPCHER 2020: 9–37; ANTONOPOULOS 2022: 13–16; BOTHE 2008: 571–582; SEGER 2014: 266.

²⁴ UPCHER 2020: 9–37; ANTONOPOULOS 2022: 13–16; BOTHE 2008: 571–582.

²⁵ UPCHER 2020: 38–40.

²⁶ For such a view see notably SCHMID 2024: 1044–1064.

²⁷ UPCHER 2020: 9–12.

security? Finally, State practice, though imperfect, has not yet established a clear customary norm displacing the traditional understanding;²⁸ the classical view thus remains the default framework from which deviations must be measured.

This analysis does not seek to resolve the broader debate on whether neutrality, in its entirety, has survived the UN Charter era nor to produce an in-depth study of the optional character – or not – of the law of neutrality. Instead, it proposes exploring the potential for neutrality law regarding satellite ground and space infrastructure in an armed conflict. Equally, this article does not seek to develop a fully detailed argument on applicability to the space domain, as it is, *per se*, a debated issue.²⁹

This study focuses primarily on neutrality as a framework for protection, explaining that the law of neutrality predates the United Nations Charter and may still serve as a subsidiary mechanism in moments of institutional paralysis when the Security Council is unable or unwilling to recognise a threat to the peace, a breach of the peace or an act of aggression. Yet, while the law of neutrality has traditionally protected and facilitated the commerce of neutral States, it was never conceived with the complexities of the contemporary space sector in mind. International humanitarian law has long addressed the dual-use nature of space assets, and neutrality law must now confront the same tension: could the protection of “neutral” satellites and infrastructures unintentionally pour fuel on the fire?

This article explores the dual role of the law of neutrality in outer space, asking whether it can protect neutral States and their space assets or, by inadvertence, escalate conflicts. While the first part examines neutrality’s historical evolution and its adaptation to airspace, cyberspace and potentially outer space, highlighting its protective function in shielding non-belligerents and stabilising international relations, the second part considers the risks posed by modern dual-use satellites and commercial

²⁸ UPCHER 2020: 9–12.

²⁹ “There is still no consensus with regard to the applicability of the neutrality law in space domain” (WANG–HU 2024: 5). See also HEINTSCHEL VON HEINEGG 2017: 532–536; WANG 2023.

actors, showing how indeterminacy and countermeasures could turn neutrality into a source of tension.

NEUTRALITY AS A SHIELD: PROTECTING STATES AND SPACE ASSETS

Neutrality was initially conceived as a shield, a shield that existed before the prohibition on the use of force and protected neutrals from the effects of war. This century-old framework has proven itself adaptable, extending from land and sea to airspace and, more recently, to cyberspace. As armed conflicts increasingly involve outer space, the question arises whether neutrality's protective logic might effectively limit the expansion of conflict and act as a safeguard.

The adaptive logic of infrastructure protection

The Hague Conventions of 1907 institutionalised the protective logic of the law of neutrality. Convention V, governing neutrality in land warfare and Convention XIII, addressing neutrality in naval warfare, both emphasised abstention from hostilities and the inviolability of neutral territory.

Though drafted in 1907, the Hague Convention V remarkably anticipated the challenges posed by communications in armed conflict. Article 3 prohibits belligerents from establishing new wireless telegraphy or other communication stations on the territory of a neutral State for the purpose of communicating with their forces on land or at sea and forbids the exclusive use of pre-existing installations for purely military purposes unless they are open to public correspondence.³⁰ Complementing this, Article 8 clarifies

³⁰ Hague Convention V, Article 3: "Belligerents are likewise forbidden to: (a) Erect on the territory of a neutral Power a wireless telegraphy station or other apparatus for the purpose of communicating with belligerent forces on land or sea; (b) Use any installation of this kind established by them before the war on the territory of a neutral Power for purely military purposes and which has not been opened for the service of public messages."

that neutral Powers are not required to restrict or forbid the use of telegraph or telephone lines, or wireless apparatus, belonging to the State, companies, or private individuals, by the belligerents.³¹

These provisions laid the foundation for customary international law governing the use of communications, a principle that has been echoed and elaborated in contemporary manuals on cyber and modern warfare. These provisions are relied upon for treaty interpretation and allow an evolutive interpretation. The terms employed by the drafters, such as “wireless apparatus” allow us to encompass modern technological equivalents, including satellite communication networks.

Articles 3 and 8 distinguish between purely military use, which is prohibited or restricted and civilian or public use, which may continue uninterrupted. Neutral communication infrastructures, therefore, were protected from interference by belligerents as long as their use did not amount to participation in hostilities or provide exclusive assistance to one side. Neutrality is thus not merely a duty of abstention; it is a law of protection. It shields neutral infrastructure from hostile interference and creates expectations of continuity in trade, communications and essential services.

Neutrality’s origins are a shield of protection and a mechanism of de-escalation. As Lassa Oppenheim observed, neutrality is the legal condition through which non-belligerents preserve their rights and duties vis-à-vis belligerents, including the protection of their assets from the effects of war.³² The neutral State seeks to protect its territory, population and economy from the consequences of armed conflict, and neutrality has long served as a deliberate strategy for militarily weaker powers.³³ It provides a framework that prevents neutrals from being unintentionally drawn into the conflict.³⁴ Beyond its protective function, neutrality has always played a stabilising role.

³¹ Hague Convention V, Article 8: “A neutral Power is not called upon to forbid or restrict the use on behalf of the belligerents of telegraph or telephone cables or of wireless telegraphy apparatus belonging to it or to companies or private individuals.”

³² OPPENHEIM 1952: 318.

³³ BOYE 1938: 213.

³⁴ ANTONOPOULOS 2022: 8–57.

As noted by Paul Seger, “they contribute to international predictability and stability”.³⁵ This teleological approach to the law of neutrality also supports its extension to the protection of modern telecommunication infrastructures.

The protective function of neutrality extends beyond infrastructural safeguards to encompass diplomatic and humanitarian dimensions. Neutral States may continue to play their traditional role as mediators in new areas of conflict such as cyberspace and outer space. Though outer space constitutes a new area of conflict, they could still play that role, contributing to international peace and security. The United Nations General Assembly expressly recognised this mediating vocation in its resolution of 2 February 2019 which underlined “that the national policies of neutrality of some States can contribute to the strengthening of international peace and security in relevant regions and at the global level and can play an important role in developing peaceful, friendly and mutually beneficial relations between the countries of the world” and are “aimed at promoting the use of preventive diplomacy”.³⁶ The space domain was not envisioned in 1907, but the rationale of neutrality, as a means of containing conflicts and as a means for States to be mediators, remains.

Neutrality's adaptability to new domains of warfare

Initially, in light of armed conflict on land and at sea and the use of telegraphic and radiotelegraphic lines, neutrality is a framework constantly renewed by new technologies and methods of warfare.³⁷ Neutrality adapts as new domains of conflict emerge. In maritime law, neutrality shielded merchant ships and neutral ports. In the early twentieth century, the advent of aviation required transposing neutrality principles to the skies; the Hague Conventions of 1907 did not yet foresee aircraft, but subsequent State practice and

³⁵ SEGER 2014: 269.

³⁶ United Nations General Assembly 2017: Resolution 71/275.

³⁷ For the application to cyberspace and space domains specifically see DINSTEIN–DAHL 2020; SCHMITT 2017; BEARD–STEPHENS 2024.

doctrine extended neutrality protections to neutral airspace.³⁸ Finally, the International Court of Justice, in its advisory opinion of 1996 on the threat and use of nuclear weapons, considered the “principle of neutrality, whatever its content, [...] is applicable to all international armed conflict, whatever type of weapons might be used”.³⁹ This recognition, though non-binding, reaffirms neutrality’s enduring adaptability and its capacity to serve its protective purpose under changing technological means.

Whether some of its principles extend to space-based segments of satellite systems remains a subject of debate today.⁴⁰ However, building on the commentaries to the 1907 Hague Convention V, which addressed radiotelegraphy with notable openness towards future forms of telecommunication, together with more recent interpretations and customary international law, one may reasonably conclude that the law of neutrality applies to ground stations located on the territory of neutral States.⁴¹ Modern telecommunication architecture dictates that these systems are never one-sided; they rely on an inseparable continuum of infrastructure. Therefore, one must conclude either that satellites are directly encompassed by the Hague Conventions due to the treaties’ openness to new methods of communication (with the satellite network constituting a modern wireless apparatus), or that the customary principles of neutrality, as affirmed by the 1996 ICJ advisory opinion, inherently extend beyond terrestrial infrastructure to cover the entirety of a satellite system. Consequently, the rights and duties of neutral States should be understood to comprehensively cover both the ground and the space segment. Such an approach has been followed by manuals such as the Tallinn and Oslo Manuals that have elaborated neutrality obligations in cyberspace and even Outer Space.⁴²

As reflected in the French and Swiss commentaries on neutrality, belligerents are required to integrate the foreseeable consequences of their operations on neutral infrastructures into their military assessments. The

³⁸ WILKE–DOUTAGHI 2024.

³⁹ ICJ 1996, *Advisory Opinion on the Threat or Use of Nuclear Weapons*, 89.

⁴⁰ WANG–HU 2024: 5.

⁴¹ SCHMITT 2017: 558.

⁴² See SCHMITT 2017: 558; see DINSTEIN–DAHL 2020.

conduct of hostilities is constrained by the protective regime surrounding neutral infrastructure, creating an additional dynamic of precaution that compels belligerents to evaluate and integrate, into their operational assessments, the foreseeable consequences of an attack on neutrals. The French doctrine explicitly provides that “belligerents must refrain from causing harmful effects on digital infrastructures located in the territory of a neutral State, or from launching a cyberattack from those infrastructures”.⁴³ Similarly, the Swiss position states that “belligerent States are not permitted to damage the data networks of neutral countries when undertaking combat operations via their own computer networks”.⁴⁴ Though these modern restatements concern cyberspace rather than specifically Outer Space, they embody a transposable rationale: the duty of restraint towards neutral infrastructure.

The same logic and the same opportunities apply to the space domain. The law of neutrality could equally be envisaged under the due regard principle. Indeed, under Article IX of the Outer Space Treaty, all space activities must be conducted “with due regard to the corresponding interests of all other States Parties”.⁴⁵ Though the ‘corresponding interests’ of other States are left undefined, the concept of an interest is broad and inherently encompasses legally established rights as a subset.⁴⁶

In this context, while a State’s general political posture of remaining outside a conflict might exceed the strictly space-related scope of Article IX, its specific interest in pursuing lawful space operations in an undisturbed manner certainly falls within this provision. By upholding the neutral duties of abstention and prevention in their space affairs, non-belligerents actively

⁴³ “Les belligérants doivent s’abstenir de provoquer des effets dommageables sur les infrastructures numériques situées sur le territoire d’un État neutre ou de lancer une cyberattaque depuis ces infrastructures” (French Ministry of the Armed Forces 2019: 17).

⁴⁴ Cooperative Cyber Defence Centre of Excellence 2021.

⁴⁵ Outer Space Treaty 1967: Article IX.

⁴⁶ The due regard principle obligates States to take the rights of other States into account when exercising their own freedoms. In international law, the obligation to pay “due regard” to the interests of other States, a principle directly inherited from the Law of the Sea, is universally understood to encompass the obligation to respect their established legal rights (AZCÁRATE ORTEGA – SAMSON 2023: 31).

preserve this operational interest. Consequently, the due regard principle serves to protect the legally established right of a neutral State to preserve the inviolability of its space assets.

This rule is reflected in the Oslo Manual, stating that “as a general principle, Belligerent States must conduct their Outer Space operations with due regard for the rights of Neutral States” to “reduce the risk of damaging neutral critical infrastructure and communication space assets”.⁴⁷

The law of neutrality, in this sense, functions as a default regulation.⁴⁸ Even in the absence of a comprehensive legal regime addressing the challenges posed by the dual-use nature of space assets, it provides a normative framework capable of limiting the expansion of armed conflict, stabilising international relations, and safeguarding both space-based infrastructure and its terrestrial ground stations.

NEUTRALITY’S PARADOX: LEGAL AMBIGUITIES AS A RISK TO WIDENING THE CONFLICT

If neutrality was born as a shield, it also reveals a paradox: violations of neutral obligations can entitle the injured party to take countermeasures. Though under the United Nations Charter, forcible countermeasures are prohibited, the ambiguity of what constitutes a “use of force” remains for non-kinetic space operations. States may dispute both whether a violation of the law of neutrality has occurred and whether a given countermeasure crosses the threshold from permissible (non-forcible) to prohibited (forcible).

⁴⁷ DINSTEIN-DAHL 2020: 15.

⁴⁸ “Given the improbability of the development of an effective legal regime to resolve conflicting national priorities concerning the weaponization of space, the law of neutrality remains, if only by default, a primary normative structure in the regulation of the practical effects of space control” (BOURBONNIÈRE 2006: 326).

The sources of indeterminacy

The greatest threat to the potential of neutrality law in space lies in indeterminacy. The subject of this indeterminacy encompasses two legal thresholds: first, the boundary between lawful commercial space activities and unlawful indirect participation in an armed conflict; and second, the precise assessment of what constitutes a prohibited use of force regarding non-kinetic space operations, such as spoofing or jamming. The nature of this indeterminacy is rooted in the inherent dual-use capacity of satellite infrastructure. This technological reality creates a structural clash between classical neutrality law which generally exempts private commercial civil trade from State attribution and the strict State responsibility regime established by Article VI of the Outer Space Treaty.

Already evident in the classical debates over the optional character of neutrality and its coexistence with the UN Charter, these indeterminacies become acute when transposed to space-based telecommunications. The question is no longer whether neutrality applies in space, but rather whether its undefined contours could themselves endanger space security, as the 'red lines' remain undetermined and require clarification.

This is true for space as it was, back in 1856, for the seas. As the Paris Declaration observed in the maritime context, "the uncertainty of the law and of the duties in such a matter, gives rise to differences of opinion between neutrals and belligerents which may occasion serious difficulties and even conflicts".⁴⁹ Just as the maritime powers of the nineteenth century sought to codify neutrality to prevent discord, so too is it now desirable to clearly define the rights and duties of neutral States in outer space.

This indeterminacy has already manifested in contemporary discourse. In successive interventions before the United Nations Security Council, Russia has invoked the Hague Conventions of 1907 to accuse Western States of

⁴⁹ Declaration Respecting Maritime Law, Paris, 16 April 1856, Point 3.

violating neutrality law through their assistance to Ukraine.⁵⁰ In November 2023, Russia reiterated before the Security Council that

Western countries are assiduously asserting that they are not involved in this conflict. [...] International law, including the provisions of the Hague Conventions and the norms of customary international law, are unequivocal: the commission of such acts means that these States must lose their neutral status and will become parties to an armed conflict.⁵¹

Though not concerning satellite imagery or telecommunications provided to Ukraine, the Russian rationale could soon expand to include outer space. This rhetoric illustrates a growing lawfare strategy using the law of neutrality as a legal basis,⁵² the absence of clear definitions regarding satellite assistance creates opportunities to justify countermeasures or escalation in the space domain.

What these modern statements emphasise as well is a blurred line between a violation of neutrality law and participation in the conflict. It is of the utmost importance today to recall the distinction between the two notions, especially in the space domain. Active participation in, or a sufficiently grave violation of, the law of neutrality could indeed amount to belligerency; however, minor violations do not reach that threshold.

Furthermore, the legal issue regarding the use of commercial satellites in armed conflicts vis-à-vis the law of neutrality rests in the complex articulation between the traditional commercial exemptions established in the Hague Conventions and the strict responsibility regime of the *corpus juris spatialis*. Under Article 7 of Hague Conventions V and XIII, a neutral power is not required to prevent its private nationals from exporting or transporting war material to a belligerent, establishing a protective distinction between State conduct and private commerce, as the commercial activities of private

⁵⁰ “Western countries insist that they are not parties to the conflict but are only helping Ukraine to defend itself. However, the reality is the polar opposite” (United Nations Security Council 2023a).

⁵¹ United Nations Security Council 2023b.

⁵² ANTONOPOULOS 2023.

companies cannot, in general and unless attributed, trigger the State's responsibility.⁵³ However, this distinction is challenged by Article VI of the Outer Space Treaty, which stipulates that States Parties bear international responsibility for national activities in outer space regardless of whether they are carried out by governmental agencies or non-governmental entities. This provision creates the potential for automatic attribution, raising the question of whether the state's obligation to authorise and supervise these activities effectively 'attracts' private commercial conduct into the realm of State responsibility.⁵⁴

This distinction is highly important because the law of neutrality's historical concessions for private commerce was not originally intended to permit the State itself to enter the arms trade. While Articles 7 of both Hague Conventions V and XIII accommodates the commercial interests of private actors, the direct or indirect supply of war material by the State itself is explicitly forbidden under Article 6 of Hague Convention XIII.⁵⁵

The core issue, therefore, arises from the complex intersection of three factors: the attribution mechanism of Article VI of the Outer Space Treaty; the strict prohibition on the State supply of war material under Article 6 of Hague Convention XIII (particularly if recognised as a customary rule); and the undefined threshold of what constitutes 'war material' in the space domain. If modern dual-use space services, such as navigation, imagery, or telecommunications, are classified as war material because they are used to guide missiles, pilot drones, or gather intelligence on behalf of a belligerent, their automatic attribution to a neutral State could, under a broad interpretation of neutrality law, be construed as a violation of the duty of abstention. Yet, fundamentally, these remain private commercial activities, and States could even lawfully pursue their trade with belligerents if they are not to be considered war material. A legal framework in which a State bears

⁵³ Hague Convention V, Article 7; Hague Convention XIII, Article 7.

⁵⁴ See notably WANG–HU 2024.

⁵⁵ "The supply, in any manner, directly or indirectly, by a neutral Power to a belligerent Power, of war-ships, ammunition, or war material of any kind whatever, is forbidden" (Hague Convention XIII, Article 6).

strict international responsibility for the operational activities of a private company was also unforeseen by the drafters of the 1907 Conventions.

Finally, compounding these challenges is the practical difficulty of assessing to which specific State a commercial space activity should be attributed in the first place. Indeed, especially in the event of a non-registered satellite,

there lacks comprehensive discourse among states concerning the attribution standard of private/commercial space activities [...]. On the one hand, the *lex lata* does not provide explicit guidelines on the allocation and attribution about commercial space involvement in armed conflicts [...], in other words, it does not address the required legal nexus which might include (but is not limited to) the nationality link between a state and the corresponding non-governmental entity or the space activities carried on by it.⁵⁶

These layers of indeterminacy create an environment prone to unilateral State interpretation. Without clear rules, belligerents can exploit these grey zones to justify unilateral countermeasures against neutral space infrastructure.

*From indeterminacy to potential
countermeasures on space infrastructure*

This rhetorical strategy, based on the grey zones of the law of neutrality, gains additional potency in the space domain due to the inherent dual-use character of space-based infrastructure, which blurs the line between lawful commerce and unlawful assistance by a State to a belligerent. We now live in an era where satellites serve as the eyes and ears of the battlefield. Where armed conflicts may begin with massive cyberattacks against the network of a foreign actor as illustrated by the attack on Viasat on 24 February 2022. Where space assets belonging to or registered in neutral States are used to collect intelligence, provide imagery, guide missiles, or sustain

⁵⁶ WANG-HU 2024: 5.

military communications. These are forms of warfare entirely unforeseen by the drafters of the 1907 Hague Conventions. Commercial operators such as Maxar Technologies, Iceye, Starlink and OneWeb have played a decisive role in supporting Ukraine's war effort.⁵⁷ The French National Assembly's Information Report n° 1425 of 15 May 2025 on satellites with military applications rightfully observes that "the Russo–Ukrainian conflict has brought the use of space capabilities to a paroxysm", noting that "both parties to the conflict make extensive use of satellite observation and image exploitation".⁵⁸

The dual-use nature of space assets means that the same satellite constellation can transmit civilian broadband while simultaneously supporting military communications, targeting and reconnaissance. When private operators provide services that materially assist one party in an armed conflict, the neutral State, if considered the appropriate State under Article VI of the Outer Space Treaty, faces potential attribution.

Beyond the question of legitimate targeting under international humanitarian law, such conduct risks being considered indirect participation in hostilities and could breach neutrality obligations. As James Upcher explains, there is "a considerable grey zone of activity that covers both a neutral's acquiescence in belligerent activity on neutral territory that the neutral State is powerless to prevent, as well as various forms of 'aid and assistance' rendered as an unneutral service".⁵⁹ By analogy, satellite communications or intelligence provided to a belligerent in times of war, if partially executed and not envisaged under the exceptions of the Hague Conventions, could constitute such an indirect participation in the armed conflict.

China raised this dilemma explicitly before the Open-Ended Working Group on Reducing Space Threats in 2022. Its working paper warned that "some commercial space companies interfere in armed conflicts directly, causing international concern as well as legal controversy"⁶⁰ and urged States to "ensure that these activities are carried out in conformity with

⁵⁷ NASU 2022; see also GURANTZ 2024.

⁵⁸ French National Assembly 2025: 44.

⁵⁹ UPCHER 2020: 58.

⁶⁰ United Nations 2023.

the Outer Space Treaty” and to “make an in-depth study of the political and legal consequences of commercial space companies’ involvement in military activities in outer space and interference in armed conflicts and prevent commercial space companies from taking a dangerous path”.⁶¹

When a neutral State fails to uphold its obligations, for instance due to attributable commercial space activities, an aggrieved belligerent has several recourses. First, it may seek diplomatic or institutional remedies, such as bringing the issue before the United Nations Security Council. Second, it may resort to non-forcible belligerent countermeasures to induce compliance.⁶² These countermeasures must be strictly distinguished from a formal expansion of the conflict: in that case, the countermeasures only aim at stopping the violation of the law of neutrality. The issue at stake at present is that in the absence of a more precise definition of what constitutes a violation of neutral obligations, States may unilaterally interpret these rules.

These non-forcible countermeasures also face another problem: differing interpretations of what constitutes a use of force in space (direct kinetic attacks are easier to assess than spoofing or jamming). This creates a dangerous dual indeterminacy: not only is it unclear when a neutral State’s conduct constitutes a violation warranting countermeasures, but it is also unclear whether a given countermeasure (jamming satellite signals, spoofing, or broader interference) itself crosses the threshold into prohibited use of force.⁶³ In outer space, where infrastructure is inherently transnational and dual-use, the threshold for escalation is dangerously low; breaches of neutrality can set off a spiral of escalation, where one violation triggers countermeasures, which in turn expand hostilities.⁶⁴ The Oslo Manual on Select Topics of the Law of Armed Conflict attempts to address the first

⁶¹ United Nations 2023.

⁶² ICJ, 1986, *Military and Paramilitary Activities in and against Nicaragua*, 249; ICJ, 1997, *Gabčíkovo–Nagymaros Project* (Hungary–Slovakia), 83–87; ILC, 2001, *Articles on Responsibility of States for Internationally Wrongful Acts*, Articles 49–54; see also SCHMITT 2017: 559.

⁶³ See POBJIE – AZCÁRATE ORTEGA 2024; BEARD–STEPHENS 2024: 201–221; CYMUTTA 2022.

⁶⁴ ILC, 2001, *Articles on Responsibility of States for Internationally Wrongful Acts*, Articles 49–54; see SCHMITT 2017: 559.

gap through Rule 18, which states: “As a general principle, neutral States must not knowingly allow space systems and assets for which they are responsible to be used by belligerent States in outer space operations related to armed conflict.”⁶⁵ This provision, though non-binding and not shared by the Tallinn Manual 2.0, presents a broad interpretation of the principle of impartiality extended to space by analogy. Yet, it also recognises that “commercial and trade activities by neutral companies or individuals with a belligerent State are not prohibited”.⁶⁶

This ambiguity echoes the broader challenge: determining when ordinary commercial activity becomes unlawful assistance. The rule’s formulation, “space systems for which they are responsible”, raises additional uncertainty about the degree of control, supervision, or jurisdiction that triggers State responsibility under Article VI of the Outer Space Treaty, a point that recalls the aforementioned Chinese rationale.

Indeed, as States bear international responsibility for national activities in outer space, this ambiguity becomes especially problematic where such activities may put at risk, or even breach, a neutral State’s obligations under the law of neutrality. If commercial services are deemed to cross the threshold of war material, the automatic responsibility imposed by the Outer Space Treaty could lead opposing belligerents to attribute these private acts to the State itself. Consequently, the State’s failure to prevent such assistance, even if purely commercial in origin, could be construed as a violation of the duties of abstention and prevention.

No countermeasure has ever been taken explicitly in accordance with the neutrality law in outer space. Yet, reliance on prudence or restraint alone is insufficient. If the law’s scope remains undefined, the deterrent value of neutrality evaporates. Either a clarified due diligence regime for neutrals or preventive measures is necessary. The ICRC proposed such precautions in its preliminary recommendations on possible norms, rules and principles of responsible behaviours relating to threats by States to space systems, emphasising:

⁶⁵ DINSTEIN–DAHL 2020: 15.

⁶⁶ DINSTEIN–DAHL 2020: 16.

To segregate, to the extent feasible, space systems used for military purposes from space systems used for civilian purposes, including satellites, ground stations and communication links [...]. To this end, whenever feasible, States and commercial enterprises developing or operating space systems should work to develop and use dedicated space products and infrastructure such as satellite payloads, ground terminals, cyber infrastructure and networks and communication links, either for exclusively military purposes or for exclusively civilian purposes [...]. Finally, States should exercise their supervisory and regulatory role to require commercial satellite companies that provide such services to do so.⁶⁷

This approach could address many of the difficulties arising under both international humanitarian law and, more specifically, the law of neutrality. For the time being, it may well represent the most effective means for a neutral State to demonstrate genuine abstention and thereby preserve its neutral status. Yet, this solution remains deeply at odds with the current structure of the space economy, in which commercial viability often depends on defence contracts and dual-use technologies. The ideal of strict separation seems economically and politically distant from present realities.

Finally, a third, more radical option exists: the aggrieved belligerent might unilaterally declare the ex-neutral State a belligerent and attack its space assets as legitimate military objectives. However, this extreme escalation is heavily constrained by international law. A neutral State does not automatically become a party to the conflict simply by committing an isolated or minor violation of neutrality law.⁶⁸ As mentioned earlier, the indeterminacy of the content of the law of neutrality and of the threshold of a use of force for non-kinetic operation is sometimes blurred. Nevertheless,

⁶⁷ International Committee of the Red Cross 2023.

⁶⁸ "What this practice appears to demonstrate is that even massive financial and logistical support, and repeated violations of the law of neutrality, does not amount to co-belligerency or 'participation' in the hostilities. This approach seems to be confirmed in recent case law, which has rejected the view that the granting of logistical facilities, in violation of the neutral duty of prevention, amounts to participation in hostilities" (UPCHER 2020: 54–86).

to be considered a belligerent, the actions of the ex-neutral State must constitute either grave and repeated violations of the law of neutrality or cross the threshold of a prohibited use of force. If the aggrieved belligerent attacks the neutral's space assets without this high threshold being met, the attack cannot be justified as a legitimate response; rather, it constitutes an unlawful act of aggression. In such an event, the neutral State retains its inherent right of self-defence to repel the attack and may theoretically resume its neutral status once the immediate threat is neutralised and the matter settled. There is indeed "a fundamental difference between a valid repulsion of belligerent attempts to violate neutrality, and 'hostilities' against the neutral which create a state of war between the belligerent and the neutral".⁶⁹

In such a context, the absence of a clarified framework amplifies risks. In a domain where infrastructures could involve different countries, where the consequences of a hostile act can have consequences for various States, even a single misinterpreted act could entangle multiple States in hostilities.

CONCLUSION

Satellites will likely never cease to be used in armed conflict, and though neutrality is an evolving stance, many states will want to remain outside of these conflicts. Neutrality must, however, remain a shield that enables, as it has for centuries, neutrals to preserve their assets. The same logic and the same opportunities apply to the space domain. The law of neutrality could serve to limit the expansion of armed conflict beyond Earth, stabilise international relations and protect both space assets and their terrestrial ground stations from hostile interference. If extended prudently to outer space, neutrality would not be an anachronism but a natural evolution of its protective function, a framework through which the preservation of peace, the continuity of civilian infrastructures and the predictability of international conduct could be maintained even in the most modern theatres of war.

⁶⁹ UPCHER 2020: 63.

Neutrality is a tool for space security; however, it can “only be enhanced by the determination of clear norms helping belligerents identify neutral space assets and determining the corresponding rights and duties of neutral States”.⁷⁰ This paradox brings us full circle. The very system designed to shield non-belligerents from war may, through uncertainty, become a vector of escalation.

The solution is neither to abandon neutrality in outer space nor to apply nineteenth-century rules without adaptation. Instead, the international community must undertake what the 1856 Paris Declaration deemed necessary for maritime warfare and what remains equally urgent for space security: the clarification and codification of neutral obligations in a context of technological complexity and dual-use infrastructure.

Two points deserve emphasis: first, that countermeasures based on the law of neutrality no longer justify any use of force; and second, that the law of neutrality can and should be a shield for space security. But shields require a clear definition. Without it, the very framework designed to contain conflict risks becomes an instrument of its expansion. The relevance of neutrality in outer space ultimately depends on the international community’s willingness to replace indeterminacy with clarity and uncertainty with predictability. Only then can neutrality serve its centuries-old purpose: preserving peace through law and protecting those who stand apart.

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⁷⁰ BOURBONNIÈRE 2006: 336.

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