

**The Laws of Neutrality  
in the Interconnected World:  
Mapping the Future Scenarios**

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# **The Laws of Neutrality in the Interconnected World: Mapping the Future Scenarios**

Hitoshi Nasu

## Abstract

The traditional law of neutrality emerged to address the conflicting interests of belligerent and neutral states, particularly during the eighteenth and nineteenth centuries when maritime transport gained significance to the world's economies as the means of international commerce. The fundamental principles of impartiality and abstention from assisting belligerents in the prosecution of warfare were developed to balance the right of neutral states to freedom of trade against the right of belligerents to defend themselves against the damage that might arise from such trade. While, since then, the law of neutrality has remained stagnant, the growth in dual-use technologies and various means of transmitting knowledge, goods and services has created the environment where military operations rely heavily on interconnected infrastructure such as cyber and space assets. Further technological advances in different areas such as 3D printing and nanotechnology are expected to reduce the need to rely on traditional means of transport in order to acquire arms and military equipment. This chapter explores how the competing interests of belligerents and neutral states might play out in the interconnected world by examining four possible scenarios that might unfold in future warfare.

## I. Introduction

The traditional law of neutrality emerged to address the conflicting interests of belligerent and neutral states, particularly during the eighteenth and nineteenth centuries when maritime transport gained significance to the world's economies as the means of international commerce. The fundamental principles of impartiality and abstention from assisting belligerents in the prosecution of warfare were developed to balance the right of neutral states to freedom of trade against the right of belligerents to defend themselves against the damage that might arise from such trade. While, since then, the law of neutrality has remained stagnant, its relevance and role has survived the fundamental normative change that the system of collective security under the United Nations (UN) has brought into force after the Second World War.<sup>1</sup>

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<sup>1</sup> See generally ROBERT KOLB, INTERNATIONAL LAW ON THE MAINTENANCE OF PEACE: JUS CONTRA BELLUM ch. 10 (2018); Andrea Gioia, *Neutrality and Non-Belligerency*, in INTERNATIONAL ECONOMIC LAW AND ARMED CONFLICT 51-110 (H.H.G. Post ed., 1994); Patrick M. Norton, *Between the Ideology and the Reality: The Shadow of the Law of Neutrality*, 17 HARV. INT'L L.J. 249, 257-306 (1976); Dietrich Schindler, *Aspects contemporains de la neutralité*, 121 RECUEIL DES COURS 221, 243-260 (1967-II); MORRIS GREENSPAN, THE MODERN LAW OF LAND WARFARE 522-526 (1959); Titus Komarnicki, *The Place of Neutrality in the Modern System of International Law*, 80 RECUEIL DES COURS 395, 472 (1952) Howard J. Taubenfeld, *International Action and Neutrality*, 47 AM. J. INT'L L. 377 (1953); 2 L. OPPENHEIM, INTERNATIONAL LAW: A TREATISE 645-652 (HERSCH LAUTERPACHT ED. 7th ed., 1952); J.F. Lalive, *International Organization and Neutrality*, 24 BRIT. Y.B. INT'L L. 72 (1947).

Despite the inherently antagonistic and contradictory relationship of neutrality with a system of collective security,<sup>2</sup> the latter bears a limited impact on the law of neutrality in practice. This is because its impact is contingent on the extent of obligations imposed on UN member states, the powers of a centralized decision-making body (such as the UN Security Council), and the effectiveness of the machinery provided for ensuring that those obligations are so fulfilled.<sup>3</sup> The adoption of the authorization model in the exercise of collective enforcement powers by the Security Council, as well as its failure to take action when Council deliberation reaches political impasse, has meant that in practice, the law of neutrality has remained relevant.<sup>4</sup>

With the increased prospect of great power rivalry, the law of neutrality is more likely to be relied upon as a residual system of international law that regulates the relationship between belligerents and neutral states during an international armed conflict, to the extent that the Security Council leaves the situation unattended. However, the growth in dual-use technologies and various means of transmitting knowledge, goods and services has created an environment where military operations rely heavily on interconnected infrastructure, such as cyber and space assets. Further technological advances in different areas such as 3D printing and nanotechnology are expected to reduce the need to rely on traditional means of transport in order to acquire arms and military equipment. These technological advances have the potential to change the ways in which belligerents can seek support and assistance from neutral states to their advantage against the adversary, posing practical challenges to the fundamental premise upon which the entire legal regime of neutrality has been built.

There are considerable uncertainties as to how the competing interests of belligerents and neutral states might play out in the interconnected world of the future, which this chapter explores. After a brief review of the key aspects of the traditional law of neutrality, this chapter examines two variable factors that are likely to affect state behavior toward neutrality in situations of international armed conflict; one is geopolitical and the other is technological. With two variations of each factor, it then draws four possible scenarios that might unfold in future warfare as the analytical framework for examining how the boundaries in the law of neutrality might start shifting against the rights and obligations of belligerents, depending on the different geopolitical and technological conditions that develop in the coming decades. Although it is unlikely to see settlement of any developments within the next few decades, a shift could nevertheless emerge in state practice and *opinio juris* toward a different form of neutrality requiring adjustment to the traditional rules governing the neutral-belligerent relations.

## II. The Law of Neutrality in a Nutshell

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<sup>2</sup> As understood when states considered the permanent neutral status of Switzerland at the time of establishing the League of Nations: League of Nations Official Journal No. 2, 57 (1920) (stating that ‘while affirming that the conception of neutrality of the Members of the League is incompatible with the principle that all Members will be obliged to co-operate in enforcing respect for their engagements...’). Cf. Hersch Lauterpacht, *Neutrality and Collective Security*, 2 POLITICA 133, 135-137, 147-149 (1936) (explaining why the system of collective security established under the League of Nations did not wholly abolish the law of neutrality).

<sup>3</sup> See ROBERT W. TUCKER, LAW OF WAR AND NEUTRALITY AT SEA 171-175, 181 (1957).

<sup>4</sup> For analysis of state practice in the UN era, see especially Wolff Heintschel von Heinegg, “Benevolent” *Third States in International Armed Conflicts: The Myth of the Irrelevance of the Law of Neutrality*, in INTERNATIONAL LAW AND ARMED CONFLICT: EXPLORING THE FAULTLINES 543, 548-551 (Michael N. Schmitt & Jelena Pejic eds., 2007) and literature cited therein.

During an international armed conflict, the law of neutrality governs the legal relationship between states engaged in armed conflict (belligerents) and other states that refrain from participating therein (neutrals), with respective rights and duties set out in relation to the conduct of hostilities. It provides conditions upon which neutral states may continue to maintain peaceful relations with belligerents, while preventing belligerents from interfering with the sovereignty of neutral states. This body of law comprises the totality of rights and obligations that are created to regulate the neutral-belligerent relations that flow from the status of neutrality. These rights and obligations emerge as a legal consequence of the political decision to refrain from participating in hostilities, rather than from an impartial attitude or policy toward belligerents.<sup>5</sup>

The traditional law of neutrality is codified in Hague Conventions V and XIII,<sup>6</sup> which remain in force and are for the most part considered as reflective of customary international law.<sup>7</sup> Under the law of neutrality, the sovereign territory of neutral states, including their territorial sea and airspace, is inviolable. This means that belligerents are prohibited from engaging in war-fighting or war-sustaining efforts such as moving troops, transporting munitions or supplies, installing or using military communication stations or other apparatus in and across the territory of a neutral state.<sup>8</sup> However, this fundamental principle of neutrality does not extend to the belligerent use of communication stations or apparatus, such as radio-telegraphic stations and telephone cables, established before the commencement of hostilities if these are not used for purely military purposes or if these have been opened for public use.<sup>9</sup> A majority of experts in Tallinn Manual 2.0 adopted the view that this exception would extend to cyber communication systems.<sup>10</sup>

On the other hand, neutral states have corresponding obligations to ensure inviolability of neutral territory, which are summarized as follows.<sup>11</sup>

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<sup>5</sup> See HANS Kelsen, *COLLECTIVE SECURITY UNDER INTERNATIONAL LAW* 154-157 (1957). See also INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC), *UPDATED COMMENTARY ON THE THIRD GENEVA CONVENTION OF 1949* ¶ 1082 (2020).

<sup>6</sup> Convention No. V Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land, Oct. 18, 1907, 36 Stat. 2310, T.S. No. 540 [hereinafter Hague Convention V]; Convention No. XIII Concerning the Rights and Duties of Neutral Powers in Naval War, Oct. 18, 1907, 36 Stat. 2415, T.S. No. 545 [hereinafter Hague Convention XIII]. For the historical development, see generally ELIZABETH CHADWICK, *TRADITIONAL NEUTRALITY REVISITED: LAW, THEORY AND CASE STUDIES* (2002); STEPHEN C. NEFF, *THE RIGHTS AND DUTIES OF NEUTRALS: A GENERAL HISTORY* (2000).

<sup>7</sup> See, e.g., Australian Defence Headquarters, *ADDP 06.4, Law of Armed Conflict* ch. 11 (2006); CHIEF OF THE GENERAL STAFF (CANADA), *B-GJ-005-104/FP-021, LAW OF ARMED CONFLICT AT THE OPERATIONAL AND TACTICAL LEVELS* ¶¶ 805-811, 869-875, ch. 13 (2001); DANISH MINISTRY OF DEFENCE & DEFENCE COMMAND, *DENMARK MILITARY MANUAL ON INTERNATIONAL LAW RELEVANT TO DANISH ARMED FORCES IN INTERNATIONAL OPERATIONS* 62-63, 549-552, 581-582 (2016); FEDERAL MINISTRY OF DEFENCE (Germany), *ZDV 15/2, LAW OF ARMED CONFLICT MANUAL* ch. 12 (2013) [hereinafter GERMAN MANUAL]; *MINISTÈRE DE LA DÉFENSE, MANUEL DE DROIT DES CONFLITS ARMÉS* 66 (2012) [hereinafter FRENCH MANUAL]; NEW ZEALAND DEFENCE FORCE, *MANUAL OF ARMED FORCES LAW: VOL. 4 LAW OF ARMED CONFLICT* ch. 16 (2017); NORWEGIAN CHIEF OF DEFENCE, *MANUAL OF THE LAW OF ARMED CONFLICT* ¶¶ 1.44-1.45, 10.23-10.28 (2013); UNITED KINGDOM MINISTRY OF DEFENCE, *THE MANUAL OF THE LAW OF ARMED CONFLICT* ¶¶ 1.42-1.43 (2004) [hereinafter UK MANUAL]; OFFICE OF THE GENERAL COUNSEL, U.S. DEPARTMENT OF DEFENSE, *LAW OF WAR MANUAL* ch. XV (rev. ed., Dec. 2016) [hereinafter U.S. MANUAL].

<sup>8</sup> Hague Convention V, *supra* note 6, arts. 1-3; Hague Convention XIII, *supra* note 6, arts. 1-5.

<sup>9</sup> Hague Convention V, *supra* note 6, arts. 3(b), 8.

<sup>10</sup> TALLINN MANUAL 2.0 ON THE INTERNATIONAL LAW APPLICABLE TO CYBER OPERATIONS r. 151, at ¶ 4 (Michael N. Schmitt ed., 2017) [hereinafter TALLINN MANUAL 2.0].

<sup>11</sup> For details, see especially TUCKER, *supra* note 3, at 202-258; See also Yoram Dinstein, *The Laws of Neutrality*, 14 ISRAEL YB. H.R. 80, 91-98 (1984).

- (a) Impartiality: neutral states must apply every measure of restriction or prohibition in exercising their neutral rights or in fulfilling their duties in an impartial and non-discriminatory manner toward all the belligerents.<sup>12</sup> The neutral's duty of impartiality is subjective in nature, meaning that it does not require restrictive measures to have equal effect upon the belligerents, nor do they have to be intended as such.
- (b) Abstention: neutral states are obliged to abstain from providing belligerents with direct or indirect support with certain goods and services in the prosecution of hostilities.<sup>13</sup> This obligation, however, does not require neutral states to prevent their subjects from rendering assistance outside their territory.<sup>14</sup>
- (c) Prevention: neutral states have a duty to use the means at their disposal to prevent belligerent violations of neutrality and provision of certain materials and other assistance to a belligerent.<sup>15</sup> The scope of this obligation extends to support activities carried out by their subjects within their territory, but excludes belligerent merchant vessels that are not operating under the direction or control of a belligerent for hostile or military purposes.<sup>16</sup>
- (d) Acquiescence: neutral states are obliged to acquiesce in the belligerent exercise of repressive measures against neutral subjects engaging in hostile assistance.<sup>17</sup>

These rules were developed as aspects of economic warfare during the eighteenth and nineteenth centuries when the volume of international trade, particularly through maritime routes, increased significantly.<sup>18</sup> It follows that the boundaries of these rules were drawn to address the distinct concerns that states shared against the particular historical background of that time. This means that the traditional law of neutrality is built upon anachronistic premises and assumptions, which may not survive the future environment of warfare.

First, the law of neutrality regulates sovereign activities of neutral states or their assets and objects located outside neutral territory, such as non-commercial government ships and aircraft which enjoy sovereign immunity.<sup>19</sup> This means that the law of neutrality, as it is traditionally formulated, does not afford the same neutral status to non-governmental entities operating outside neutral territory, even if they are subject to neutral state jurisdiction or control.<sup>20</sup> For example, a space object carried on a neutral state's registry

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<sup>12</sup> Hague Convention V, *supra* note 6, art. 9; Hague Convention XIII, *supra* note 6, art. 9.

<sup>13</sup> Hague Convention V, *supra* note 6, arts. 2-4; Hague Convention XIII, *supra* note 6, art. 6.

<sup>14</sup> Hague Convention V, *supra* note 6, arts. 6-7; Hague Convention XIII, *supra* note 6, art. 7.

<sup>15</sup> Hague Convention V, *supra* note 6, art. 5; Hague Convention XIII, *supra* note 6, arts. 8 & 25.

<sup>16</sup> The practical relevance of this exclusion was significantly diminished in the lead up to World War II. See TUCKER, *supra* note 3, at 247-251.

<sup>17</sup> Hague Convention V, *supra* note 6, arts. 16-17; Declaration Concerning the Laws of Maritime War, arts. 45-47, Feb. 26, 1909; Convention on Maritime Neutrality, arts 1-2, Feb. 20, 1928, 47 Stat. 1989, T.S. No. 845; Commission of Jurists, Rules Concerning the Control of Wireless Telegraphy in Time of War and Air Warfare: Part II Rules of Air Warfare, art. 53(c), Feb. 19, 1923, *reprinted in* 17 AM. J. INT'L L. SUPP. 246 (1923).

<sup>18</sup> See, e.g., 4 PHILIP C. JESSUP, NEUTRALITY: ITS HISTORY, ECONOMICS AND LAW 20-57 (1936).

<sup>19</sup> See TALLINN MANUAL 2.0 r. 151 ¶ 3, r. 152 ¶ 4.

<sup>20</sup> Note that neutral merchant ships and civil aircraft are subject to special rules of protection from attacks and other repressive measures under the law of armed conflict: MANUAL ON INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE rr. 51-57, 137-142 (Program on Humanitarian Policy and Conflict Research at Harvard University, 2013); SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA rr. 67-71, 146-158 (Louise Doswald-Beck ed., 1995).

would fall under the jurisdiction of the neutral state.<sup>21</sup> However, the mere exercise of jurisdiction or control is not sufficient to bring into operation the law of neutrality.<sup>22</sup> With the increase in governmental support or control over non-governmental activities engaged outside neutral territory in the form of foreign investment or state-owned enterprise, belligerent states may start recognizing sufficient governmental nexus to those activities and attributing them to the neutral state. The accessibility of these activities to belligerents may create incentives for expanding the reach of the law of neutrality beyond traditional domains.

Second, the scope of obligations is premised upon the feasibility of maintaining a clear separation between public activities of the neutral state and the private activities undertaken by its subjects.<sup>23</sup> The duty of abstention, for example, does not extend to the export or transport of arms and supplies by private entities for the use of either belligerent,<sup>24</sup> as the freedom of trade by private citizens with belligerent states remains unimpaired. Developed under the significant influence of US neutral policy, this limitation on neutral obligations has been sustained only on precarious grounds due to apprehension regarding the compatibility between freedom of private trade and proclaimed neutrality of government.<sup>25</sup>

Julius Stone critically observed that “the political, social, and economic functions of modern state governments, especially the growth of governmental trading, have undermined the traditionally fundamental distinction between the duty of neutral governments to abstain from arming a belligerent, and its liberty to permit its private traders to do exactly that.”<sup>26</sup> In the twenty-first century, many governments apply strict regulation on the export of arms and dual-use technologies.<sup>27</sup> The traditional assumption that there is no governmental involvement in the pursuit of unimpeded economic gain by private actors from the supply of arms, has become untenable.

Third, the primary focus of restriction is transgression by physical act, such as provision of personnel and arms in support of hostile activities.<sup>28</sup> The modern growth in non-tangible means of support for hostile activities, such as supply of data and imagery through computer networks or use of 3D printing for production of arms, has provided neutral states with far greater a range of options to support belligerents. For instance, a neutral state may share with a belligerent party computer malware or weapons design data for the 3D printing production of arms and military equipment. This raises the question as to whether the mere transmission of data qualifies as an export or transport of arms or

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<sup>21</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, art. VIII, Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205.

<sup>22</sup> Wolff Heintschel von Heinegg, *Neutrality and Outer Space*, 93 INT’L L. STUD. 526, 535 (2017).

<sup>23</sup> TUCKER, *supra* note 3, at 211.

<sup>24</sup> Hague Convention V, *supra* note 6, art. 7; Hague Convention XIII, *supra* note 6, art. 7.

<sup>25</sup> For detailed analysis, see George P. Politakis, *Variations on a Myth: Neutrality and the Arms Trade*, 35 GERMAN Y.B. INT’L L. 435, 455-495 (1992).

<sup>26</sup> JULIUS STONE, LEGAL CONTROLS OF INTERNATIONAL CONFLICT 364 (1954). *See also* WOLFGANG FRIEDMANN, THE CHANGING STRUCTURE OF INTERNATIONAL LAW 346-348 (1964).

<sup>27</sup> *See, e.g.*, Arms Export Control Act, 22 U.S.C. 2778; Council Regulation (EC) No. 428/2009, OJ L. 134 (May 29, 2009) 1; Export Control Act 2002 (UK); Defence Trade Controls Act 2012 (Australia); Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, Dec. 19, 1995.

<sup>28</sup> The transmission of information was, on the other hand, equated to carriage of contraband. *See* Wolff Heintschel von Heinegg, *Visit, Search, Diversion, and Capture in Naval Warfare: Part I, The Traditional Law*, 29 CAN. Y.B. INT’L L. 283, 319 n.228 (1991).

supplies prohibited under the law of neutrality.<sup>29</sup> Uncertainty regarding the technologically advanced means of support for belligerents has the potential to create loopholes for neutral states to participate in hostilities without losing their neutral status and associated protection. These states may continue to enjoy neutral status until a belligerent state considers the supporting activity as amounting to an act of hostilities directed against it.<sup>30</sup> The clandestine nature of non-tangible support also poses practical challenges in detecting neutral states' participation in hostile activities.

The change of circumstances, from the time when the law of neutrality was developed and codified, has the potential to undermine the fundamental premises upon which the entire legal regime has been built. For this legal regime to continue to operate as a residual system of international law under the modern conditions of warfare, it will demand a shift in the law's boundaries with respect to the rights and obligations of belligerents, and corresponding rights and obligations of neutral states. And such a shift must be able to accommodate their competing interests in the interconnected world.

It is debatable whether the reform of the legal regime serves the interest of the international community to prevent escalation of an international armed conflict.<sup>31</sup> Yet, the future development of this legal regime will at least help clarify feasible measures that neutral states are expected to adopt. This will also help identify limits of the extent to which belligerents may legitimately take advantage of external support within the normative framework established by the UN Charter and subsequent development of international law.

### III. Contemporary Drivers for the Future Development of the Law of Neutrality

In the modern development of international law, traditional laws of war have been largely replaced by the laws of peace, with the process of outlawing war culminating in the prohibition of the use of force under Article 2(4) of the UN Charter. However, the law of armed conflict has survived and developed further, due to major codification efforts, the accumulation of state practices, and the growth of jurisprudence. With the growing trend toward major power rivalry paralyzing the function of the Security Council, there

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<sup>29</sup> For a division of views, see TALLINN MANUAL 2.0 r. 151 ¶¶ 5-7.

<sup>30</sup> The loss of neutral status must not be confused with a breach of neutral obligations. The former is a conflict classification issue governed by the law of armed conflict, not under the law of neutrality: ICRC, *supra* note 5, ¶ 1083 fn 253. The latter, on the other hand, raises the issue of state responsibility. However, the disadvantaged adversary may respond by taking proportionate action against the unlawful belligerent activity, arguably including forcible action within neutral territory after it has afforded the neutral state a reasonable opportunity to remedy the situation. See U.S. MANUAL, *supra* note 7, §15.4.2; Michael N. Schmitt, *Extraterritorial Lethal Targeting: Deconstructing the Logic of International Law*, 52 COLUM. J. TRANSNAT'L L. 77, 81-82 (2013); MYRES S. MCDUGAL & FLORENTINO P. FELICIANO, *THE INTERNATIONAL LAW OF WAR: TRANSNATIONAL COERCION AND WORLD PUBLIC ORDER* 406-407 (1994); GREENSPAN, *supra* note 1, at 538; ERIK CASTRÉN, *THE PRESENT LAW OF WAR AND NEUTRALITY* 462-463, 487 (1954); OPPENHEIM, *supra* note 1, at 679, 695. Cf. Michael Bothe, *The Law of Neutrality*, in *THE HANDBOOK OF HUMANITARIAN LAW IN ARMED CONFLICTS* 549, 558 (Dieter Fleck ed., 3d ed. 2013) (observing that “a reaction against violations of neutrality which would involve the use of force against another state is permissible only where the violation of the law triggering that reaction itself constitutes an illegal armed attack”); Dietrich Schindler, *Transformations in the Law of Neutrality Since 1945*, in *HUMANITARIAN LAW OF ARMED CONFLICT: CHALLENGES AHEAD, ESSAYS IN HONOUR OF FRITS KALSHOVEN* 367, 381-383 (Astrid J.M. Delissen & Gerard J. Tanja eds., 1991).

<sup>31</sup> See Heintschel von Heinegg, *supra* note 4, at 560. Cf. Quincy Wright, *The Future of Neutrality*, 242 INT'L CONCILIATION 353, 367 (1928) (observing that “[i]t seems probable that neutrality has never been a constructive force for peace at all but merely a consequence of the recurrence of war in an anarchic but trading world”).



are more likely to be cases where the law of neutrality becomes relevant. The International Law Commission has indeed confirmed that as the body of law that is intended to operate in periods of armed conflict, the law of neutrality survives the outbreak of an armed conflict and prevails over other treaty rights and obligations that may be subject to termination, withdrawal or suspension in situations of armed conflict.<sup>32</sup>

There are two variable factors that are likely to affect state behavior toward neutrality in situations of international armed conflict; one is geopolitical and the other is technological. The geopolitical factor consists of the role that powerful states assume in the conflict (as a belligerent or a neutral state), their relational and geographical proximity to the belligerents, and the duration and frequency of the assumed role across different conflicts. As history has proven, the relative power of states plays a critical role in the formulation of neutral rights and obligations. The law of neutrality is to a large extent dependent upon the ability of neutral states to effectively exercise their rights and implement their obligations against a belligerent's attempt to encroach upon them in pursuit of a war-fighting advantage.

For instance, when a neutral state does not have the ability to effectively enforce its neutrality rights such as preventing a belligerent from using neutral territory or territorial waters as a base of operation, the lack of enforcement reduces the opposing belligerent's obligation to respect neutral sovereignty.<sup>33</sup> The continued involvement of major powers in international armed conflicts as belligerents or as their allies, and the absence of powerful third-party states capable of enforcing neutral rights, has the potential to annihilate the legal regime of neutrality.

The central significance of technology to modern warfare is such that "[t]echnology determines how wars can be fought."<sup>34</sup> This also means that the nature of technology in demand for war-fighting and war-sustaining efforts determines how belligerents seek to engage with neutral states. During the eighteenth and nineteenth centuries when the traditional law of neutrality was developed, many belligerents relied upon the import of arms, fuels and other supplies for the sustenance of war. The means to acquire these resources was limited to land transport and shipping. Twenty-first century warfare has a wider range of items that can be added to the list of war potentials. Many of these applications are dual-use (i.e., they can be used both for military and civilian purposes) and can be transferred by land, sea, air or electronic means. Military or dual-use technologies built on computer algorithms or data are easily transferable and amenable to rapid diffusion as they do not necessarily take the form of a tangible object to trade as a product. The traditional means of transport may even become redundant due to further technological advances in different areas such as 3D printing and nanotechnology, enabling the local manufacturing of tangible objects, including arms and military equipment, through the transmission of information.

In addition, the growth in dual-use technologies and various means of transmitting knowledge, goods and services has created an environment where military operations rely heavily on interconnected infrastructure, such as cyber and space assets especially for communication, navigation and surveillance (CNS). It is conceivable that the

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<sup>32</sup> Draft Articles on the Effects of Armed Conflict on Treaties, with Commentaries, art. 17, *reprinted in* 2 Y.B INT'L L. COMM'N 119 (2011).

<sup>33</sup> TUCKER, *supra* note 3, at 221-224, 256-257.

<sup>34</sup> Michael N. Schmitt, *War, Technology, and the Law of Armed Conflict*, in *THE LAW OF WAR IN THE 21ST CENTURY: WEAPONRY AND THE USE OF FORCE* 137, 137 (Anthony M. Helm ed., 2006) (Vol. 82, U.S. Naval War College International Law Studies).

telecommunication exception to the inviolability of neutral territory extends, by analogy, to the pre-existing CNS infrastructure to the extent that it is not used solely for military purposes, or it has been opened for public use.<sup>35</sup> However, the belligerent use of such infrastructure might conceivably convert its enabling assets, such as computer servers and satellites, into legitimate military objectives. This might in turn prompt neutral states to close or restrict belligerent access to the transmission of data, communication or navigation services.<sup>36</sup> The impartial application of closure or restriction means that the belligerents controlling their own CNS infrastructure, such as the US Global Positioning System (GPS), Russia's Global Navigation Satellite System (GLONASS), and China's BeiDou Navigation Satellite System (BDS), enjoy strategic superiority against those relying on services provided by other states.

The ease at which belligerents can access military assets provided by neutral states is likely to revive the classic debate regarding the neutral freedom of trade. The perceived impracticality of maintaining a separation between the government's official position of neutrality and the freedom of private trade by its subjects has given rise to various views for reform. There have been suggestions, for instance, that neutral states should be required to take all reasonable measures to prevent provision of arms, war materials and other assistance to a belligerent by individuals and non-state entities under their control.<sup>37</sup> With respect to communication, McDougal and Feliciano have also observed a shift in state practice toward "increasing recognition of a duty to control and regulate all radio, and probably telegraph, stations within neutral territory to prevent the communication of military information to the belligerents."<sup>38</sup>

Further, in light of the fundamental normative change with the establishment of the UN collective security system, George Politakis considers it untenable to argue that the traditional law of neutrality, as formulated in 1907, has remained unchanged and, instead, observes that "[t]he once legitimate expectations of unimpeded economic gain, inborn in the traditional concept of neutrality, are today displaced by broader communal interests, in preserving the general well-being and peaceful co-existence through collective effort."<sup>39</sup> Phillip Drew goes even further by stating that "[i]nsofar as corporations normally may not export arms or weapons to other states without their home state's authority, it is now generally accepted that a state that grants permission to supply any sort of war materials to one of the belligerents to a conflict is engaging in non-neutral activity."<sup>40</sup>

Others posit that the neutral government's trading activities should be assimilated to private trading by lifting neutral duties of abstention from the provision of support and supplies for belligerents in the prosecution of hostilities, while rendering them liable to

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<sup>35</sup> See *supra* notes 9-10.

<sup>36</sup> See A. PEARCE HIGGINS, *THE HAGUE PEACE CONFERENCES AND OTHER INTERNATIONAL CONFERENCES CONCERNING THE LAWS AND USAGES OF WAR: TEXTS OF CONVENTIONS WITH COMMENTARIES* 292 (1909).

<sup>37</sup> See, e.g., Walter L. Williams Jr., *Neutrality in Modern Armed Conflicts: A Survey of the Developing Law*, 90 MIL. L. REV. 9, 32-33 (1980); Francis Deák, *Neutrality Revisited*, in *TRANSNATIONAL LAW IN A CHANGING SOCIETY: ESSAYS IN HONOR OF PHILIP C. JESSUP* 137, 152-153 (Wolfgang Friedmann, Louis Henkin & Oliver Lissitzyn eds., 1972).

<sup>38</sup> MCDUGAL & FELICIANO, *supra* note 30, at 460. See also George K. Walker, *Neutrality and Information Warfare*, 76 INT'L L. STUD. 233, 236, 238 (2001); *Harvard Draft Convention on Rights and Duties of Neutral States in Naval and Aerial War*, 33 AM. J. INT'L L. 167, 267-279 (1939) [hereinafter *Harvard Draft*]; Francis Colt de Wolf, *Telecommunications and Neutrality*, 30 AM. J. INT'L L. 117 (1936).

<sup>39</sup> Politakis, *supra* note 25, at 503.

<sup>40</sup> PHILLIP DREW, *THE LAW OF MARITIME BLOCKADE: PAST, PRESENT, AND FUTURE* 20 (2017).

search and seizure for contraband carriage.<sup>41</sup> This position has been criticized as amounting to rendering neutrality “purely nominal,”<sup>42</sup> “inopportune retrogression in aims and means,”<sup>43</sup> and “conferring upon neutrals the legal possibility of exercising a decisive influence upon the outcome of a conflict.”<sup>44</sup> The fundamental difficulty lies in the incontrovertible link between the modern practices in arms trade and political considerations that dictate export control.

This classic debate cannot be repeated without regard to the modern development of international law. Of particular relevance is the general obligation to respect and ensure respect for international humanitarian law,<sup>45</sup> which encompasses a duty not to encourage, aid or assist the commission of violation.<sup>46</sup> More specifically, the Arms Trade Treaty prohibits any transfer of conventional arms as defined therein if it is known that the arms or items would be used in, most relevantly, “the commission of genocide, crimes against humanity, grave breaches of the 1949 Geneva Conventions, attacks directed against civilian objects or civilians protected as such, or other war crimes as defined by international agreements to which it is a Party.”<sup>47</sup>

Although gaps remain between these legal obligations at the international level and the focus of export control at the national level,<sup>48</sup> normative developments are vectored toward restraining non-participants from providing supply and support for the belligerent engaging in serious violations of international humanitarian law. Such normative developments may further drive the reduction in the scope of neutral rights to engage in private trade with belligerents.

#### IV. Future Scenarios

Historically, the law of neutrality developed, to a large extent, through state practice as it unfolded with historical events that prompted states to adopt a specific position to protect their interest under the attendant circumstances. The contents of the law as codified in 1907 present a delicate set of reciprocal rights and obligations which “can only be adequately understood or explained by the historical events which gave rise to their actual adoption in State practice and their final formal drafting in treaty texts”.<sup>49</sup> The uneasy balancing of interests between belligerents and neutral states inevitably evolves over time, leaving considerable uncertainty as to how the geopolitical and technological

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<sup>41</sup> STONE, *supra* note 26, at 412-413.

<sup>42</sup> OPPENHEIM, *supra* note 1, at 658 n.1.

<sup>43</sup> Politakis, *supra* note 25, at 498.

<sup>44</sup> This is because, unlike private neutral trade motivated by considerations of economic gain, political considerations are likely to prevail in government trade policy. *See* TUCKER, *supra* note 3, at 216-217.

<sup>45</sup> *See* Common Article 1 of Convention for The Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, 6 U.S.T. 3114, 75 U.N.T.S. 31; Convention for the Amelioration of the Condition of Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, 6 U.S.T. 3217, 75 U.N.T.S. 85; Convention Relative to the Treatment of Prisoners of War, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135; Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, 6 U.S.T. 3516, 75 U.N.T.S. 287.

<sup>46</sup> Case Concerning Military and Paramilitary Activities in and against Nicaragua (Nicar. v. USA), Merits, 1986 I.C.J. Rep. 14, 114 ¶ 220 (June 27).

<sup>47</sup> Arms Trade Treaty art. 6, Apr. 2, 2013, 52 ILM 985 (2013).

<sup>48</sup> *See* Hitoshi Nasu, *Artificial Intelligence and the Obligation to Respect and to Ensure Respect for International Humanitarian Law*, in ENSURING RESPECT FOR INTERNATIONAL HUMANITARIAN LAW 132, 138-140 (E. Massingham & A. McConnachie eds., 2020).

<sup>49</sup> J.H.W. VERZIJL, INTERNATIONAL LAW IN HISTORICAL PERSPECTIVE: PART IX-B THE LAW OF NEUTRALITY 40 (1979). *See also* Wright, *supra* note 31, at 362-367.

factors as discussed in the previous section may drive the future development of the law of neutrality. While formal amendment is unlikely to be made to the Hague rules in the near future, it is probable that states will attempt to apply and interpret basic provisions of the law of neutrality as they see fit in light of new conditions.<sup>50</sup>

The remainder of this chapter outlines four possible scenarios to examine how the boundaries in the law of neutrality might shift against the rights and obligations of belligerents, depending on the different geopolitical and technological conditions that develop in the coming decades. The first two scenarios are based on the situation where technologically advanced states engage in hostilities against each other as belligerents: first, in a technologically highly interconnected environment where less powerful states heavily rely upon and therefore have little practical means to enforce their neutral rights or fulfil their neutral obligations (apologetic neutrality); and second, where even technologically inferior states can exercise a high degree of technological autonomy and control over technology-driven activities that take place in their territory (egalitarian neutrality). The third scenario envisages a situation where technologically advanced states, while maintaining the status of neutrality, are inclined to lend covert support to a politically, economically or ideologically favored belligerent by taking advantage of highly interconnected technological infrastructure (benevolent neutrality). In the last scenario where technologically advanced neutral states can exercise a high degree of technological autonomy and control, belligerents also have the technological ability to detect violation of neutral obligations and can be deprived of any external support by neutral states (deontological neutrality).

#### A. The Law of Apologetic Neutrality

As stated above, the scope of belligerent rights and obligations is, to a large extent, dependent upon the effective exercise of neutral rights and fulfilment of neutral obligations against a belligerent's attempt to encroach upon neutral sovereignty to gain advantage against the adversary. Therefore, in cases where major powers repeatedly engage in an international armed conflict, the ability of neutral states to enforce neutral rights and fulfil neutral obligations is likely to be diminished.<sup>51</sup>

This is even more so when neutral states do not have technological means to prevent belligerents from using or having access to facilities, goods and services in the neutral territory, particularly through computer networks or by using 3D printing. The same problem arises when belligerents do not have technological means to monitor and detect the adversary's access to neutral facilities, goods and services, for instance, through computer networks for supply of data and imagery or due to the use of invisibility technology to cloak warships and aircraft.<sup>52</sup>

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<sup>50</sup> See H. Lauterpacht, *The Problem of the Revision of the Law of War*, 29 BRIT. Y.B. INT'L L. 360, 377 (1952).

<sup>51</sup> For historical illustration of the difficulties with neutrality, see especially Elizabeth Chadwick, *The 'Impossibility' of Maritime Neutrality During World War I*, 54 NETH. INT'L L. REV. 337 (2007).

<sup>52</sup> For military applications of invisibility technology and associated legal issues, see Sephora Sultana & Hitoshi Nasu, *Invisible Soldiers: The Perfidy Implications of Invisibility Technology and Battlefields of the Future*, in 2 LIEBER STUDIES: THE IMPACT OF EMERGING TECHNOLOGIES ON THE LAW OF ARMED CONFLICT 307 (Eric T. Jensen & Ronald T.P. Alcalá eds., 2019); Kaitlin J. Sahni, *The Legality of Invisibility Technology in Modern Warfare*, 103 GEO. L.J. 1661 (2015); Hitoshi Nasu, *Nanotechnology and the Law of Armed Conflict*, in NEW TECHNOLOGIES AND THE LAW OF ARMED CONFLICT 143, 152-154 (Hitoshi Nasu & Robert McLaughlin eds., 2014).

The technological difficulties in restricting belligerent access to neutral support, and in detecting neutral states' participation in hostile activities, have the potential to undermine the law of neutrality at the fundamental level of practicality. In such an interconnected environment, there is no way of knowing that neutral states are fulfilling their obligations or that belligerents are taking advantage of neutral support. The legal position of neutral states is apologetic in that the law becomes submissive to subjective interpretation based on the political interests of the state.<sup>53</sup> It creates loopholes for neutral states to participate in hostilities without losing their neutral status and associated protection. Technologically advanced belligerents can easily find ways to circumvent legal constraints in taking advantage of neutral support. This could result in shifting state practice and weakening *opinio juris* underpinning the traditional law of neutrality, depriving much of its normative force as the regime regulating the relationship between belligerents and neutral states.

#### B. The Law of Egalitarian Neutrality

Even in an interconnected environment, the availability of technological means to restrict or detect access to information, data and imagery would make a significant difference to the ability of neutral states to enforce neutral rights and fulfil neutral obligations. In cases where even technologically inferior states can exercise a high degree of technological autonomy and control over technology-driven activities that take place in their territory, the delicate balance in the protection of neutral and belligerent interests under the traditional law of neutrality can largely be maintained and even extended to cover non-tangible means of support for hostile activities. There are two reasons why this extension will lead to the development of the law into an egalitarian form where the neutral state is obliged to prevent non-governmental support activities including those engaged outside neutral territory or through CNS infrastructure.

The first reason is the widespread practice of governmental support or control over non-governmental activities, entities and objects. Due to the application of export control regulation in many countries, belligerent states have a reasonable ground for recognizing sufficient governmental nexus to non-governmental activities, entities and objects accessible to the adversary.<sup>54</sup> Technologically advanced belligerents would therefore be inclined to expect neutral states to exercise control over non-governmental support activities, including non-tangible support if they have technological means at their disposal to do so.

The imposition of such expectation on neutral states would mean, not only denying the freedom of private trade by neutrals, but also extending neutral obligations to the prevention of non-governmental support to belligerents. Should state practice develop to require neutral states to prevent all arms trade and non-tangible support by neutral nationals, that would also mean that a wider range of items, including satellites and computer data, are subject to interdiction and seizure as countermeasures against the neutral state for failing to prevent unneutral services (as opposed to contraband, which is

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<sup>53</sup> See MARTTI KOSKENNIEMI, FROM APOLOGY TO UTOPIA: THE STRUCTURE OF INTERNATIONAL LEGAL ARGUMENT 28-29 (2005).

<sup>54</sup> See *supra* note 27.

only the risk that private traders assume without involving any breach of international law on the part of a neutral state).<sup>55</sup>

The second reason is the growth of interconnected infrastructure amenable to belligerent use and therefore liable to attack. As discussed previously, the pre-existing CNS infrastructure is arguably exempted from the inviolability of neutral territory if it is not used solely for military purposes, or if it has been opened for public use.<sup>56</sup> The belligerent use of such infrastructure might nonetheless conceivably convert its enabling assets, such as computer servers and satellites, into legitimate military objectives. Under the traditional law of neutrality, neutral states are allowed to close or restrict belligerent access to the transmission of data, communication or navigation services as long as the restriction is imposed in an impartial manner.<sup>57</sup>

An egalitarian form of neutrality would turn this neutral right into an obligation if there is political will on the part of belligerents to enforce those technological restrictions. Such an obligation would deny the current exemption regarding communication facilities from neutral obligations of abstention and prevention, with the failure to exercise due diligence resulting in the neutral CNS infrastructure becoming an object of remedial measures. This would mean that technologically advanced belligerents would be entitled to disrupt access to the neutral state's CNS infrastructure to the extent necessary to remedy the situation, in cases where the neutral state is unwilling or unable to prevent belligerent access to the transmission of data, communication or navigation services.

### C. The Law of Benevolent Neutrality

With the strict regulation that governments nowadays impose on the export of arms and dual-use technologies, the traditional assumption that there is no governmental involvement in the pursuit of unimpeded economic gain by private actors from the supply of arms has become untenable.<sup>58</sup> Nevertheless, it is an incontrovertible fact that states, when they are not involved in an armed conflict, are often inclined to lend covert support to a politically, economically or ideologically favored belligerent against another.<sup>59</sup> This is because it is advantageous for third states not to enforce the law of neutrality, as it only serves to restrict commercial relations without conferring any real additional benefit.<sup>60</sup> This inclination to adopt a position of benevolent neutrality may well strengthen further when there are technological means to conceal the provision of support under the direction and control of government, especially by taking advantage of highly interconnected technological infrastructure.

The past state practices of avoiding or abdicating the law of neutrality based on the doctrine of “non-belligerency” or “qualified neutrality” were extensively debated in

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<sup>55</sup> This is expected to circumvent the difficulty with the classification of contraband in practice due to the modern technologies introducing a wider range of items with potential use for hostile purposes. See DREW, *supra* note 40, at 33-36; James Farrant, *Modern Maritime Neutrality Law*, 90 INT'L L. STUD. 198, 233-236 (2014).

<sup>56</sup> See *supra* notes 9-10, 35.

<sup>57</sup> See *supra* note 12; TALLINN MANUAL 2.0 r. 151 ¶ 8, r. 152 ¶ 3. Indeed, recognizing the military significance of modern telecommunication technology, numerous states closed or dismantled existing telecommunication stations, or imposed restrictions or governmental control, in order to prevent abuse for unneutral purposes. *Harvard Draft*, *supra* note 38; Verzijl, *supra* note 49, at 210-211.

<sup>58</sup> See *supra* notes 26-27.

<sup>59</sup> For illustration with the experience of Ireland, see Aoife O'Donoghue, *Neutrality and Multilateralism after the First World War*, 15 J. CONF. & SEC. L. 169, 190-200 (2010).

<sup>60</sup> CASTRÉN, *supra* note 30, at 34-35.

literature.<sup>61</sup> However, as Heintschel von Heinegg observes, the mere practices on the part of some neutral states deviating from the strict rules of neutrality are not sufficient as evidence of a corresponding rule of customary international law.<sup>62</sup> The critical condition to be satisfied is that the aggrieved belligerent considers itself obliged to recognize or acquiesce in the neutral practices supporting the adversary, refraining from resorting to remedial measures even when there are means at its disposal to enforce belligerent rights in accordance with the traditional rules of neutrality. In other words, there can be no successful adjustment to the traditional law of neutrality under customary international law without corresponding state practice and *opinio juris* on the part of belligerents being developed.

The shift toward benevolent neutrality is unlikely to be achieved under customary international law out of political, economic or ideological considerations, but the technological erosion of national boundaries might tip the balance. This is because the inability to control or detect the provision of support through interconnected technological infrastructures, for example with the use of 3D printing or sharing data and imagery, suggests that neither belligerents nor neutral states have the means to enforce their rights or fulfil their obligations effectively. Technologically advanced neutral states would therefore see little legal constraint in providing unneutral support by non-tangible means when there is no feasible means to monitor or detect such transmission.

This new reality may well be acknowledged initially by liberally interpreting the belligerent use of communication facilities exempted from the general principle of neutrality to allow for their use as a non-tangible means of support for hostile activities, not just as a means of communication. Over time, the expanded exception may creep into the primary rules of neutrality as belligerents gain greater military advantage from neutral support provided through interconnected technological infrastructures.

#### D. The Law of Deontological Neutrality

The legal regime of neutrality may develop toward a deontological form when neutral states have the means at their disposal to enforce their rights and fulfil their obligations effectively against belligerents by exercising a high degree of technological autonomy and control. In this scenario, it is also assumed that technological means are available for belligerents to detect the provision of support in violation of neutral obligations. If belligerents are technologically inferior and do not have means at their disposal to detect unneutral transmission, there would be nothing to stop neutral states from pursuing a position of benevolent neutrality, as discussed above, by providing covert support to one belligerent against another for political, economic or ideological reasons.

With the ability to control access to information, data and imagery, technologically advanced states will have, as they currently do, significant influence on the conduct of belligerents in warfare. Therefore, unlike an egalitarian form of neutrality, stricter adherence to the law of neutrality alone may not satisfy all the relevant obligations, such as the general obligation to respect and ensure respect for international humanitarian law and, if applicable, those derived from the Arms Trade Treaty as discussed above.<sup>63</sup> The pursuit of benevolent neutrality would also run the risk of violating these obligations when the supported belligerent engages in serious violations of international humanitarian

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<sup>61</sup> See, e.g., CASTRÉN, *supra* note 30, at 448-458; Komarnicki, *supra* note 1, at 454-463.

<sup>62</sup> Heintschel von Heinegg, *supra* note 3, at 553-556.

<sup>63</sup> See *supra* notes 45-47.

law. These normative considerations, if further developed, may cause tensions with the principle of impartiality, prompting adjustment to the meaning of impartiality and reducing the scope of private trade with belligerents permitted under the traditional law of neutrality.

The adjustment to the law of neutrality toward a deontological form would mean that non-participants have an obligation, not only to abstain from providing supply and support, but also to prevent any of their subjects from providing hostile assistance for the belligerent engaging in serious violations of international humanitarian law. This restraint would apply not only to the export of arms and military equipment, but also to the sharing of information, data and imagery. It could even extend to communication stations and infrastructures, which are exempted from neutral obligations under the traditional law of neutrality, if technological means are available to restrict or deny access to these facilities as is the case with GPS.<sup>64</sup> However, the unilateral imposition of restrictions on one party to a conflict against another could be seen as simply a breach of the principle of impartiality on the part of neutral states, rather than as a measure to ensure respect for international humanitarian law.

## V. Conclusion

With increased tensions between great powers, we are more likely to see the Security Council reaching an impasse and states having no choice but to consider how they should position themselves in their relationship with belligerents involved in international armed conflict in the coming decades. To the extent that the situation remains unattended by the Security Council, the law of neutrality will operate to fill the gap as a residual system of international law governing the legal relationship between belligerents and non-participants with respect to the conduct of hostilities. However, the survival of this legal regime under the modern environment of warfare will demand a shift in the law's boundaries with respect to the rights and obligations of belligerents, and corresponding rights and obligations of neutral states, in order to accommodate their competing interests in the interconnected world.

Modern technological advances have enabled belligerents to seek support from other states by various means due to the widespread use of information technology and the growth in dual-use technologies. The military significance of information transmitted via radio and other technological means of communication was already recognized when the Hague rules were codified, and more acutely in the aftermath of the First World War. However, as this chapter has posited, the military reliance on interconnected infrastructure such as cyber and space assets, especially for CNS, has created an environment where the fundamental premise upon which the traditional law of neutrality was built could be compromised. This is particularly so when a wider range of arms and military equipment are easily transferrable and amenable to rapid diffusion without any technological means available for states to control, restrict or detect cross-border supply and support.

This chapter mapped out four different scenarios in which further development of the law of neutrality could be promoted in a particular form, with adjustment to state practice and *opinio juris* among belligerent states as well as neutral states. The analysis is based

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<sup>64</sup> Cf. Paul B. Larsen, *International Regulation of Global Navigation Satellite Systems*, 80 J. AIR L. & COM. 365, 375 (2015) (referring to the possible disruption of GNSS service under Chapter VII authorization or for national security reasons).



on simplified scenarios with variation of geopolitical and technological factors only. Needless to say, the actual reality that develops in the coming decades will be far more complex and involve mixed reaction to different situations that emerge.

Nevertheless, the four different prospective laws of neutrality examined in this chapter may serve as an analytical framework within which each state can develop its own strategic consideration based on its political, economic and other national interests, the geopolitical situation prevailing at the time, and the degree to which it can exercise technological autonomy and control over the use of interconnected infrastructures. No matter which option is pursued, it should be emphasized that the law of neutrality only operates as a legal consequence of the failure of collective security – the mechanism that the UN is designed to provide for the maintenance of international peace and security.