

The Legal Requirement for Command and the Future of Autonomous Military Platforms

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Rain Liivoja, Eve Massingham,** and Simon McKenzie****

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I. INTRODUCTION

Technologically advanced armed forces extensively use land-based, aerial, and maritime platforms that can be controlled remotely and do not require an on-board crew. Increasingly, these systems have the capacity to function with some degree of autonomy, that is to say without real-time intervention by human operators.¹ Uncrewed and autonomous platforms hold enormous military potential. For one, these systems can act as major force multipliers, granting a significant advantage to numerically small but technologically advanced forces. Second, on certain tasks, particularly those that require speed, precision, and continuous vigilance, these systems can outperform humans in effectuating the intent of military commanders. Finally, unlike humans, these devices are expendable and reducible to a financial cost.

Increased reliance on complex technology also entails risks and vulnerabilities,² which has led States and their militaries to deploy autonomous systems with a degree of caution. In addition to technical and operational challenges, many stakeholders have ethical and legal concerns about the use of autonomous platforms. The legal qualms are not unexpected. Like most technologies underpinning weapons and other military systems, the use of autonomous functionality is not specifically prohibited or regulated by the law of armed conflict (LOAC). There are no specific references to remotely controlled or autonomous systems in the Geneva Conventions or their Additional Protocols, and no separate legal framework has developed to deal with autonomy in military operations. That is not to say that the question of autonomy has not previously arisen in relation to the conduct of war. An early version of autonomous targeting—time-delayed detonation of explosive devices carried by uncrewed balloons—was prohibited at the Hague

1. On this broad understanding of autonomy, *see, e.g.*, Law and the Future of War Research Group, *Autonomy*, UNIVERSITY OF QUEENSLAND SCHOOL OF LAW (Oct. 2, 2020), <https://law.uq.edu.au/research/future-war/autonomy>; RAIN LIIVOJA, ANN VÄLJATAGA, & MAARJA NAAGEL, *Autonomous Cyber Capabilities Under International Law* (2019), https://ccdcoe.org/uploads/2019/07/Autonomy-in-Cyber-Capabilities-under-International-Law_260619-002.pdf.

2. AUSTRALIAN DEFENCE FORCE, AUSTRALIAN DEFENCE DOCTRINE PUBLICATION 00.1, COMMAND AND CONTROL ¶ 1.4 (2009).

Peace Conferences.³ At the same time, the use of automatic submarine contact mines was regulated but not completely banned.⁴ In any event, the use of autonomous functions in military systems remains governed by the general principles and rules of international law, including LOAC. Given that these rules and principles were not drafted with significant autonomous functionality in mind, questions about how they govern systems are bound to arise.

Over the past decade, the application of the existing law to autonomous military systems and potential further regulation have generated much controversy. Debates on this issue have prominently taken place within the Group of Government Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons (GGE LAWS), established in 2016 by the Fifth Review Conference of the Convention on Certain Conventional Weapons.⁵ However, these discussions have been limited to autonomy in the critical functions of weapon systems—that is to say, in the targeting functions.⁶ Much less attention has been given to the legal implications of autonomous functionality in military platforms and devices more generally.

3. Declaration (IV, 1) to Prohibit, for the Term of Five Years, the Launching of Projectiles and Explosives from Balloons, and Other Methods of Similar Nature, July 29, 1899, 32 Stat. 1839, T.S. No. 393; Declaration (XIV) Prohibiting the Discharge of Projectiles and Explosives from Balloons, Oct. 18, 1907, 36 Stat. 2439, 205 Consol. T.S. 403. For a description of the use of balloons to deploy explosives on timed devices during the 1848–1849 Austrian siege of Venice, see Jeffery Stamp, *Aero-Static Warfare: A Brief Survey of Ballooning in Mid-Nineteenth-Century Siege Warfare*, 79 JOURNAL OF MILITARY HISTORY 767, 769–70 (2015).

4. Convention No. VIII Relative to the Laying of Automatic Submarine Contact Mines, Oct. 18, 1907, 36 Stat. 2332, T.S. No. 541; for a discussion, see Steven Haines, *1907 Hague Convention VIII Relative to the Laying of Automatic Submarine Contact Mines*, 90 INTERNATIONAL LAW STUDIES 412 (2014).

5. Final Document of the Fifth Review Conference of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, at 9, U.N. Doc. CCW/CONF.V/10 (Dec. 23, 2016) (documenting “Decision 1” of the conference, establishing an open-ended Group of Governmental Experts (GGE) related to emerging technologies in the area of lethal autonomous weapons systems); see also Final Document of the Sixth Review Conference of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, at 9, U.N. Doc. CCW/CONF.VI/11 (Apr. 27, 2022) (documenting “Decision 1” of the conference, whereby the work of the GGE is to continue).

6. See, e.g., Draft Report of the 2021 Session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, U.N. Doc. CCW/GGE.1/2021/CRP.1 (Dec. 8, 2021).

One existing international law concept may constrain the use of autonomous capabilities in military vessels and aircraft. This is the well-established notion—which we discuss in more detail in Part II below—that military units, personnel, and platforms must be “under the command” of an appropriate person. We refer to this as the “command requirement.” In this article, we set out to investigate whether the command requirement places limitations on devices that can be made autonomous and the functions these devices can lawfully carry out.⁷

As explained in Part III, we use the methodology on treaty interpretation set out in the Vienna Convention on the Law of Treaties (VCLT).⁸ The VCLT provides that “a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose”⁹ and establishes when it is appropriate to turn to supplementary materials to aid interpretation.¹⁰ Our analysis shows that the ordinary meaning of the expression in question has been understood by militaries in a variety of ways and that the context in which the expression originally appears, and the object and purpose of the relevant instruments, do not provide conclusive answers (Part IV). Accordingly, we also turn to the drafting history of the relevant provisions (Part V) and examine subsequent State practice (Part VI). This investigation supports the view that the command requirement cannot be read to preclude the use of autonomous systems. The command requirement does not necessitate direct oversight by a (human) commander for every decision made, but rather requires asking whether the system is fulfilling the intent of the commander. Put differently, the command requirement should be understood as a legal technique to secure the link between the system and the intention of the deploying State through the commander.

7. We raised this issue initially in Eve Massingham, Simon McKenzie, & Rain Liivoja, *Command in the Age of Autonomy: Unanswered Questions for Military Operations*, OPINIO JURIS (Jan. 5, 2020), <http://opiniojuris.org/2020/05/01/ai-and-machine-learning-symposium-command-in-the-age-of-autonomy-unanswered-questions-for-military-operations/>.

8. Vienna Convention on the Law of Treaties arts. 31–32, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter VCLT].

9. *Id.* art. 31(1).

10. *Id.* art. 32.

II. THE COMMAND REQUIREMENT IN THE EXERCISE OF BELLIGERENT RIGHTS

International law recognizes that, in time of an international armed conflict, certain entities have “belligerent rights.” These entities are of two kinds: first, States party to the conflict, and, second, non-State armed groups whose belligerency has been duly recognized.¹¹ Belligerent rights enable the entity in question “under the law of war to engage in actions in wartime that would not be permitted under the law of peace.”¹² This includes, in the first instance, the ability to use force and take other harmful action against the adversary, within the constraints of LOAC.¹³ Belligerent rights also permit the taking of certain measures with respect to other States, notably by implementing blockades, and visiting and searching merchant vessels and civil aircraft where there are reasonable grounds for suspecting that these are subject to capture.¹⁴ Considering the dearth of contemporary practice of recognizing the belligerency of non-State armed groups, we focus here on the exercise of belligerent rights by States while acknowledging that the discussion applies, *mutatis mutandis*, to non-State groups when their belligerency has been recognized.¹⁵

Outside the exceptional and narrowly defined circumstances of a *levée en masse*,¹⁶ only the armed forces can exercise belligerent rights on behalf of a State. When it comes to determining who or what, as part of the armed

11. On the conditions and effects of the recognition of belligerency, see ROB MCLAUGHLIN, *RECOGNITION OF BELLIGERENCY AND THE LAW OF ARMED CONFLICT* (2020).

12. Lawrence Hill-Cawthorne, *Rights Under International Humanitarian Law*, 28 EUROPEAN JOURNAL OF INTERNATIONAL LAW 1187, 1188 (2017).

13. See *infra* text accompanying notes 18–19.

14. On the substance of these rights, see SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA r. 93–104 (blockades), 118–24 (visit and search of merchant vessels), 125–34 (interception, visit, and search of civil aircraft) (Louise Doswald Beck ed., 1995); on these rights constituting a part of belligerent rights, see MCLAUGHLIN, *supra* note 11, at 140–41.

15. For an argument on the continued relevance of the recognition of belligerency, see MCLAUGHLIN, *supra* note 11, at 241–66.

16. For an overview, see Lindsey Cameron et al., *Article 4: Prisoners of War*, in COMMENTARY ON THE THIRD GENEVA CONVENTION: CONVENTION (III) RELATIVE TO THE TREATMENT OF PRISONERS OF WAR 348, ¶¶ 1061–68 (Knut Dörmann et al. eds., 2021); for a discussion of the renewed contemporary relevance of the concept, see, e.g., David Wallace & Shane Reeves, *Levée en Masse in Ukraine: Applications, Implications, and Open Questions*, ARTICLES OF WAR (Mar. 11, 2022), <https://lieber.westpoint.edu/levee-en-masse-ukraine-applications-implications-open-questions/>.

forces, can exercise these rights, the appropriate unit of analysis differs somewhat by domain of warfare. Yet the notion of command plays a key role in every domain.

On land, the focus is squarely on the individual. Members of the armed forces, other than medical and religious personnel, are combatants.¹⁷ They have a right to participate directly in hostilities.¹⁸ In other words, they are entitled, as a matter of international law, to engage in acts that fall within belligerent rights. According to the contemporary definition, found in Additional Protocol I, the armed forces of a party to a conflict consist of “all organized armed forces, groups and units which are *under a command* responsible to that Party for the conduct of its subordinates.”¹⁹

In naval and air warfare the focus generally shifts from individual combatants to platforms—ships and aircraft. According to a well-established rule of customary international law applicable in naval warfare²⁰ and air warfare alike,²¹ belligerent rights may only be exercised by warships and military aircraft.

17. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts art. 43(2), June 8, 1977, 1125 U.N.T.S. 3.

18. *Id.*

19. *Id.* art. 43(1) (emphasis added).

20. SAN REMO MANUAL, *supra* note 14, ¶ 118 (“In exercising their legal rights in an international armed conflict at sea, belligerent warships and military aircraft have a right to visit and search merchant vessels outside neutral waters where there are reasonable grounds for suspecting that they are subject to capture”); U.S. DEPARTMENT OF THE NAVY, NWIP 10-2, LAW OF NAVAL WARFARE ¶ 500(e) (1955) (“At sea, only warships and military aircraft may exercise belligerent rights”); OFFICE OF THE GENERAL COUNSEL, U.S. DEPARTMENT OF DEFENSE, LAW OF WAR MANUAL § 13.3.3 (rev. ed. Dec. 2016) (“During international armed conflict at sea, warships are the only vessels that are entitled to conduct attacks”); FEDERAL MINISTRY OF DEFENCE (Germany), ZDV 15/2, LAW OF ARMED CONFLICT MANUAL ¶ 1019 (2013) (“The following may perform naval operations: warships, military aircraft and army and air force units”); DANISH MINISTRY OF DEFENCE, MILITARY MANUAL ON INTERNATIONAL LAW RELEVANT TO DANISH ARMED FORCES IN INTERNATIONAL OPERATIONS 584 (2016) (“As regards units, only warships and military aircraft have a right to take part in hostilities at sea. In situations where attacks on objectives at sea are conducted from land, military units on land may also participate”); NORWEGIAN CHIEF OF DEFENCE, MANUAL OF THE LAW OF ARMED CONFLICT ¶ 10.19 (2018) (“Only warships may lawfully conduct military attacks and other acts of war, for example enforcing blockades and conducting visits, searches and captures”).

21. General Report of the Commission of Jurists at the Hague, Part II: Rules of Aerial Warfare, art. 12, Feb. 19, 1923, *reprinted in* 17 AMERICAN JOURNAL OF INTERNATIONAL LAW

What amounts to a warship or a military aircraft becomes critical to the application of this rule, and the notion of command plays a crucial role in determining which platforms qualify. Article 29 of the United Nations Convention on the Law of the Sea (UNCLOS) defines a warship as

a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, *under the command* of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline.²²

Mirroring the definition of warships, the Hague Rules of Aerial Warfare stipulate a series of conditions that a military aircraft must meet: namely the aircraft “shall bear an external mark indicating its nationality and military character,”²³ it “shall be *under the command* of a person duly commissioned or enlisted in the military service of the state,”²⁴ and “the crew must be exclusively military.”²⁵

In short, belligerent rights can only be exercised by military personnel or platforms under the command of a person who has a legally recognized link

SUPPLEMENT 242, 245 (Oct. 1923); General Report of the Commission of Jurists to Consider and Report Upon the Revision of the Rules of Warfare, Part II: Rules of Aerial Warfare, art. 13, *reprinted in* 32 AMERICAN JOURNAL OF INTERNATIONAL LAW SUPPLEMENT 1, 18 (Jan. 1938) [hereinafter Hague Rules of Aerial Warfare] (“Military aircraft are alone entitled to exercise belligerent rights”); PROGRAM ON HUMANITARIAN POLICY AND CONFLICT RESEARCH AT HARVARD UNIVERSITY, MANUAL ON INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE r. 17 (2013) [hereinafter HARVARD MANUAL] (“(a) Only military aircraft, includingUCAVs, are entitled to engage in attacks. (b) The same Rule applies to the exercise of other belligerent rights, such as interception.”); FEDERAL MINISTRY OF DEFENCE (Germany), *supra* note 20, ¶ 1103 (“Only military aircraft are entitled to exercise belligerent rights and use military force in fighting military objectives of an adversary”); *Id.* ¶ 1115 (“Only military aircraft are entitled to conduct air operations This also applies to all enforcement actions that do not in themselves entail the use of weapons such as intercepting, diverting or forcing to land other aircraft for the purpose of inspection.”); DANISH MINISTRY OF DEFENCE, *supra* note 20, at 548 (“Only military aircraft may participate in hostilities”); NORWEGIAN CHIEF OF DEFENCE, *supra* note 20, ¶ 11.11 (“Only military aircraft have the right to participate directly in hostilities”).

22. United Nations Convention on the Law of the Sea art. 29, Dec. 10, 1982, 1833 U.N.T.S. 397 (emphasis added) [hereinafter UNCLOS].

23. Hague Rules of Aerial Warfare, *supra* note 21, art. 3.

24. *Id.* art. 14 (emphasis added).

25. *Id.*

to a party to the conflict. That then raises the question as to what exactly “under command” means.

III. INTERPRETING THE COMMAND REQUIREMENT

Article 31(1) of the VCLT provides the starting point, or the “general rule,” for interpreting treaties. It requires treaties to be “interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”²⁶ This general rule starts with the ordinary meaning of the text of the treaty, but requires consideration of the context of the terms and the object and purpose of the treaty along with the text.²⁷ When the application of the general rule leads to no clear outcome, Article 32 of the VCLT allows the interpreter to look to supplementary means of interpretation—in particular, the circumstances of its conclusion or the *travaux préparatoires*—to “confirm the meaning resulting from the application of article 31” or to “determine the meaning when the interpretation according to article 31” is “ambiguous or obscure” or if it “leads to a result that is manifestly absurd or unreasonable.”²⁸ The International Court of Justice has consistently affirmed that these provisions of the VCLT reflect customary law.²⁹ Accordingly, they can be relied on when interpreting treaties to which the VCLT does not apply per se, such as

26. VCLT, *supra* note 8, art. 31(1).

27. RICHARD K. GARDINER, TREATY INTERPRETATION 161–62 (2d ed. 2017).

28. VCLT, *supra* note 8, art. 31(2).

29. *See, e.g.*, Sovereignty over Pulau Ligitan and Pulau Sapadan (Indon./Malay.), Judgment, 2002 I.C.J. 625, ¶ 37 (Dec. 17) (“in accordance with customary international law, reflected in Articles 31 and 32 of that Convention”); Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea (Nicar. v. Colom.), Preliminary Objections, 2016 I.C.J. 6, ¶ 35 (Mar. 17) (“it is well established that Articles 31 to 33 of the Convention reflect rules of customary international law”); Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 nautical miles from the Nicaraguan Coast (Nicar. v. Colom.), Preliminary Objections, 2016 I.C.J. 100, ¶ 33 (Mar. 17) (“the customary international law rules on treaty interpretation enshrined in Articles 31 to 33 of the 1969 Vienna Convention on the Law of Treaties”); Application of the International Convention for the Suppression of the Financing of Terrorism and of the International Convention on the Elimination of All Forms of Racial Discrimination (Ukr. v. Russ.), Preliminary Objections, 2019 I.C.J. 558, ¶ 106 (Nov. 8) (“the Court will apply the rules of customary international law on treaty interpretation as reflected in Articles 31 to 33 of the Vienna Convention”).

treaties that predate the VCLT. Thus, the VCLT encapsulates a widely accepted way of interpreting treaties, including in the context of LOAC.³⁰

The command requirement in relation to warships derives both from treaties and customary law, making the methodology of treaty interpretation clearly relevant. The requirement with respect to military aircraft has a more complicated character: it has legally binding force only as a matter of customary law but the rule can nevertheless be traced back to treaty texts. An early version appeared in the 1919 Paris Convention, which stipulated that “[e]very aircraft *commanded* by a person in military service detailed for the purpose shall be deemed to be a military aircraft.”³¹ A later iteration of this rule, cited earlier,³² can be found in the Hague Rules, a document that was intended to be a treaty. Furthermore, as discussed below, the customary law rule regarding military aircraft reflected in these documents closely follows the treaty-based rule governing warships. Accordingly, reference to treaty interpretation methodology in relation to these codifications of customary law seems appropriate.³³ Moreover, it would be a strange outcome if different understandings of command applied to aerial and naval devices; it makes more sense to treat the requirements as referring to a unified concept.

Interpreting rules that use the concept of command requires reference to supplementary means of interpretation. As we will see, resolving conclusively what is meant by command by reference only to the text, context, and object and purpose is not possible: command is capable of many different ordinary meanings and the structure and objective of the treaties in which the term appears do not offer definitive guidance. Given this, we take a wide view by looking both to the meaning of command in the military context as

30. *See, e.g.*, Jean-Marie Henckaerts & Heike Niebergall-Lackner, *Introduction*, in COMMENTARY ON THE FIRST GENEVA CONVENTION: CONVENTION (I) FOR THE AMELIORATION OF THE CONDITION OF THE WOUNDED AND SICK IN ARMED FORCES IN THE FIELD 1, ¶ 16 (Knut Dörmann et al. eds., 2016).

31. Convention Relating to the Regulation of Aerial Navigation art. 31, Oct. 13, 1919, 11 L.N.T.S. 173 (emphasis added).

32. *See supra* text accompanying notes 22–24.

33. For the significance of the VCLT methodology, especially when a treaty text reflects customary international law, *see, e.g.*, Panos Merkouris, *Interpreting Customary International Law: You’ll Never Walk Alone*, in THE THEORY, PRACTICE, AND INTERPRETATION OF CUSTOMARY INTERNATIONAL LAW 347, 348–53 (Panos Merkouris et al. eds., 2022); Marina Fortuna, *Different Strings of the Same Harp: Interpretation of Rules of Customary International Law, Their Identification and Treaty Interpretation*, in THE THEORY, PRACTICE, AND INTERPRETATION OF CUSTOMARY INTERNATIONAL LAW 393, 407–13 (Panos Merkouris et al. eds., 2022).

well as the drafting history of the relevant treaties. But this is not a straightforward exercise: for example, Anthony King disputes any suggestion that command has a relatively uniform history and instead argues that as “conditions change new regimes of command emerge.”³⁴

The structure of our analysis diverges in one significant respect from the sequence suggested by the VCLT. Under Article 31(3) of VCLT, any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions, and any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation, “shall be taken into account . . . together with the context.” In other words, subsequent practice should be considered in the application of the general rule of interpretation, prior to examining any preparatory materials. While mindful of this, we present an examination of the preparatory materials before considering subsequent practice in order to preserve a historically coherent narrative.

IV. TEXT, CONTEXT, AND OBJECT AND PURPOSE

A. Ordinary Meaning

Command is a concept that is used in a variety of different fields. In each there are different ways of articulating what it means to be in command of another person or object. The *Oxford English Dictionary* indicates that to command is to “order, enjoin, bid with authority or influence,” or to “have power to order; to have at or under command or disposal; to control, dominate.”³⁵ This suggests that, in the general sense, command comprises a wide range of conduct that, at its core, entails exercising influence over someone or something.

But this cannot be the end of the inquiry. Importantly, when establishing the ordinary meaning of treaty terms, “account can be taken of the kind of treaty involved, thus the test is not so much any layman’s understanding, but what a person reasonably informed on the subject matter of the treaty would

34. ANTHONY KING, *COMMAND: THE TWENTY-FIRST-CENTURY GENERAL* 70 (2019).

35. *Command* (verb), secs. I & III, OXFORD ENGLISH DICTIONARY, <https://www.oed.com/view/Entry/36949> (last visited Sept. 29, 2022).

make of the terms used.”³⁶ Indeed, in the context of treaty provisions specifically relating to military activities, a well-understood military meaning of a term should be preferred over a layman’s definition.

Command has long been specifically associated with military structures of authority. Indeed, the *Oxford English Dictionary* dates the use of the term in relation to a “force, fortress, ship or the like” to at least as early as 1594.³⁷ Unsurprisingly, the term has developed a military meaning. To elucidate that meaning, we first turn to military doctrine and then to military scholarship.

1. Military Doctrine

The North Atlantic Treaty Organization’s (NATO) Terminology Database provides the following definition of command: “The authority vested in a member of the armed forces for the direction, coordination and control of military forces.”³⁸ The United States Department of Defense (DoD) defines command as “[t]he authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment,”³⁹ and the Australian Defence Force (ADF) very similarly defines command as “the authority that a commander in the military Service lawfully exercises over subordinates by virtue of rank or assignment.”⁴⁰ Dutch doctrine states that “the exercise of command gives the commander the authority, the responsibility and also the obligation to act, or indeed to deliberately refrain from action.”⁴¹ The French Ministry of Defence defines command as a general responsibility both to control the execution of orders and to repress infractions.⁴²

36. Oliver Dörr, *Article 31*, in VIENNA CONVENTION ON THE LAW OF TREATIES 521, ¶ 41 (Oliver Dörr & Kirsten Schmalenbach eds., 2012).

37. *Command*, OXFORD ENGLISH DICTIONARY, *supra* note 35, sec. III.9.a (citing CHRISTOPHER MARLOWE & THOMAS NASHE, THE TRAGEDIE OF DIDO, QUEENE OF CARTHAGE (c. 1593)).

38. *Command*, NATOTERM: THE OFFICIAL NATO TERMINOLOGY DATABASE, <http://nso.nato.int/natoterm> (last visited Sept. 30, 2022).

39. U.S. DEPARTMENT OF DEFENSE, *Definition of “Command,”* JOINT PUBLICATION 1, DOCTRINE FOR THE ARMED FORCES OF THE UNITED STATES, at GL-5 (2017).

40. AUSTRALIAN DEFENCE FORCE, *supra* note 2, ¶ 1.4.

41. MINISTRY OF DEFENCE OF THE NETHERLANDS, JOINT DOCTRINE PUBLICATION 5, COMMAND AND CONTROL 14 (2012).

42. MINISTÈRE DE LA DÉFENSE DE LA RÉPUBLIQUE FRANÇAISE, MANUEL DE DROIT DES CONFLITS ARMÉS 9 (2012).

Military doctrine often addresses command together with control. “Command and control” or “C2,” according to the DoD means “[t]he exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission.”⁴³ However, from a legal perspective, it is useful to draw a distinction between them. Control is regarded as something less than command. As per the DoD, control refers to “[a]uthority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations.”⁴⁴ The ADF likewise views control as “[t]he authority exercised by a commander over part of the activities of subordinate organisations, or other organisations not normally under his command, which encompasses the responsibility for implementing orders or directives.”⁴⁵ NATO defines command as the *vesting of authority*, as opposed to control, which is the *exercise of authority*.⁴⁶ This suggests command allows for responsibility for conduct to be allocated; control covers how the conduct is actually carried out. Control is the method by which command can occur: “the facilities, equipment, communications, procedures, and personnel essential to the commander for planning, directing, and controlling operations of assigned forces pursuant to the missions assigned.”⁴⁷

This distinction has become particularly important in legal discussions, for example, in the context of multinational operations. This is due to the discomfort of troop contributing countries in giving up command over their troops to another State or entity. In the context of United Nations peacekeeping operations, member State military personnel may be under the operational control of the United Nations force commander but not under United Nations command.⁴⁸ Specific examples of this arrangement include German peacekeeping forces in Somalia, who remained under the full command authority of the German authorities but under the operational control of the United States.⁴⁹ Similarly, under Canadian law and military custom,

43. *Definition of “Command and Control,”* DOCTRINE FOR THE ARMED FORCES OF THE UNITED STATES, *supra* note 39, at GL-5.

44. *Definition of “Control,”* *id.* at GL-6.

45. AUSTRALIAN DEFENCE FORCE, *supra* note 2, ¶ 1.5.

46. *Compare Command*, NATOTERM, *supra* note 38, with *Control*, *id.*; see also MINISTRY OF DEFENCE OF THE NETHERLANDS, *supra* note 41.

47. *Control*, NATOTERM, *supra* note 38.

48. U.N. DEPARTMENT OF PEACEKEEPING OPERATIONS, UNITED NATIONS PEACEKEEPING OPERATIONS: PRINCIPLES AND GUIDELINES 68 (2008).

49. RAY MURPHY, UN PEACEKEEPING IN LEBANON, SOMALIA AND KOSOVO: OPERATIONAL AND LEGAL ISSUES IN PRACTICE 107 (2007).

operational control over Canadian peacekeeping forces may be vested in a foreign commander but operational command must be retained by the Canadian Forces.⁵⁰ Note that under Canada's military manual, operational control can be delegated by a commander.⁵¹

2. Military Scholarship

Unsurprisingly, the concept—or doctrine—of command has attracted the attention of numerous military scholars. They describe command as processing information and making decisions about the importance of the information and the appropriate response. Martin van Creveld notes the interconnectedness between a range of activities involved in the exercise of command, including the gathering of information, but also the finding of a means to “store, retrieve, filter, classify, distribute and display the [information gathered].”⁵² Norman Dixon writes that “the ideal senior commander may be viewed as a device for receiving, processing and transmitting information in a way which will yield the maximum gain for the minimum cost.”⁵³ With this information, command is then about the making of decisions.⁵⁴ This can encompass what King describes as the distinct role of “mission definition”⁵⁵ or, as R. R. Crabbe puts it, the notion of having the “capacity to decide on the allocation of resources.”⁵⁶ Military scholarship explains that command is the responsibility to make decisions about how a mission should be carried out, as well as the responsibility to determine when these plans need to be adjusted or changed. These are matters of fine judgment that appear to require human thought and reasoning.

One concept from German military doctrine that offers a useful window on the range of ways command can be exercised is *Auftragstaktik*—mission-

50. *Id.*; Christopher Leck, *International Responsibility in United Nations Peacekeeping Operations: Command and Control Arrangements and the Attribution of Conduct*, 10 MELBOURNE JOURNAL OF INTERNATIONAL LAW 346, 352–53 (2009).

51. DEPARTMENT OF NATIONAL DEFENCE OF CANADA, CANADIAN FORCES JOINT PUBLICATION CFJP 01, CANADIAN MILITARY DOCTRINE ¶ 0511(b) (2009).

52. MARTIN VAN CREVELD, *COMMAND IN WAR* 6–7 (1985).

53. NORMAN F. DIXON, *ON THE PSYCHOLOGY OF MILITARY INCOMPETENCE* 28 (1976).

54. VAN CREVELD, *supra* note 52, at 7.

55. KING, *supra* note 34, at 69.

56. R. R. Crabbe, *The Nature of Command*, in *THE HUMAN IN COMMAND: EXPLORING THE MODERN MILITARY EXPERIENCE* 9, 11 (Carol McCann & Ross Pigeau eds., 2000).

type tactics or mission command.⁵⁷ This is a form of command which can be “characterized mainly by giving out the desired ends rather than the desired ways of a certain mission.”⁵⁸ Allowing subordinates to exercise their “creativity and ingenuity” in achieving the intent of the commander⁵⁹ makes it particularly useful when operating in communication-denied environments⁶⁰ or where there is a significant temporal or geographic gap between the commander and their subordinates.

This is intricately linked to the idea of decision-making authority as including a component of responsibility and accountability, both for orders issued and orders not issued.⁶¹ C. Kenneth Allard notes that by vesting responsibility in an individual for the “direction, coordination, and control of military forces,” the individual then becomes “legally and professionally accountable for everything those forces do or fail to do.”⁶² Insofar as command is a *legal* technique (through the office of commander) for allocating responsibility and accountability, it demonstrates that human responsibility for decision-making is at the heart of the military’s understanding of what it means to be “in command.”

3. Interim Conclusion

Assessing the concept of command across these fields makes it clear that command is shorthand for describing the responsibilities and authority of a decision-maker, but that this responsibility can take effect in many ways. These different ways of understanding command also make it clear that being in command does not require the person to make *every* decision and guide every action, and that the commander can be removed from the action to some extent. Importantly, for our purposes, this suggests that an uncrewed or autonomous device that is not directly under the control of a person may still be under that person’s command.

57. Ramon Ahrens, *Mission Command in a Communications Denied Environment 2* (Feb. 16, 2016), <https://apps.dtic.mil/sti/pdfs/AD1036912.pdf> (student research paper from the U.S. Air War College).

58. *Id.*

59. *Id.*

60. *Id.*

61. Crabbe, *supra* note 56, at 11.

62. C. KENNETH ALLARD, COMMAND, CONTROL, AND THE COMMON DEFENSE 16–17 (1996).

We get a stronger sense of how militaries actually “do” command from examining military doctrine. As the Australian doctrine notes, “[a] hierarchical command structure has emerged from centuries of conflict.”⁶³ Military doctrine documents show some variation in the practice of different armed forces. Ultimately, however, they support the ideas articulated above that military command is about making decisions, allocating authority, and designating responsibility. Being in “command” allows considerable geographic and temporal distance between the commander and the commanded: command could be seen as a mechanism vesting authority and responsibility without requiring physical presence or the making of every decision. But how does this square with the context, and the object and purpose, of the requirement and its history in international humanitarian law?

B. *Context*

The context in which the phrase “under the command of” appears in legal instruments does not provide much assistance for interpretation. However, the role that the concept of command plays in international law more broadly may cast some light on its meaning. Accordingly, we now turn to the doctrine of command responsibility as developed in international criminal law and the notion of command in (civilian) maritime and aviation regulations.

1. Command Responsibility

An outgrowth of the use of command in military doctrine is reliance on that concept in international criminal law. Command responsibility is a mode of international criminal liability whereby military superiors are held to be criminally responsible for crimes under international law that they do not themselves commit but are nevertheless responsible for by virtue of a failure to appropriately exercise command. The origins of the doctrine of command responsibility can be found in the “overarching notion of ‘responsible command’” necessary to “ensure the proper functioning of the military system in general.”⁶⁴ Specifically, international criminal law holds commanders re-

63. AUSTRALIAN DEFENCE FORCE, ADF CONCEPT FOR COMMAND AND CONTROL OF THE FUTURE FORCE ¶ 36 (ver. 1.0 2019).

64. Otto Triffterer & Roberta Arnold, *Article 28. Responsibility of Commanders and Other Superiors*, in *ROME STATUTE OF THE INTERNATIONAL CRIMINAL COURT: A COMMENTARY* 1056, 1087 (Otto Triffterer & Kai Ambos eds., 3d ed. 2016).

sponsible for the actions of their subordinates in situations where the commanders know that the subordinates are engaging in criminal conduct in violation of international law and where they fail to address unlawful conduct by those subordinates after the fact.⁶⁵ Article 28(a) of the Rome Statute of the International Criminal Court provides for the responsibility of a military commander or person effectively acting as a military commander for crimes “committed by forces under his or her effective command and control, or effective authority and control as the case may be” where two conditions are met:

- (i) That military commander or person either knew or, owing to the circumstances at the time, should have known that the forces were committing or about to commit such crimes; and
- (ii) That military commander or person failed to take all necessary and reasonable measures within his or her power to prevent or repress their commission or to submit the matter to the competent authorities for investigation and prosecution.⁶⁶

Command responsibility assumes that the commander will entrust tasks to their subordinates. If commanders were expected to control absolutely everything their subordinates did there would be no need for this mode of liability as they would be directly liable as primary perpetrators for the crimes in question under Article 25 of the Rome Statute (the provision that deals with individual criminal responsibility). In addition, command responsibility acknowledges the possibility of inconsistency between the intent of the commander and the actions of subordinates. Article 28(a)(ii) provides that commanders are not necessarily responsible for every violation by their subordinates. If the commander has taken “all necessary and reasonable measures within his or her power to prevent or repress their commission” then they are not criminally liable.

2. “Command” of Civilian Ships and Aircraft

While command is often thought of as a purely military concept,⁶⁷ there are some aspects of civilian life that have strong parallels to command by virtue

65. Rome Statute of the International Criminal Court art. 28, July 17, 1998, 2187 U.N.T.S. 90.

66. *Id.* art. 28(a).

67. AUSTRALIAN DEFENCE FORCE, *supra* note 2, at 1-1.

of the responsibility they invest in individuals. For example, shipping and aviation both use similar notions to allocate decision-making authority and responsibility. Some definitions of “master” use the term command, as seen in the Australian Navigation Act: “‘master’ means the person who has command or charge of a vessel.”⁶⁸ The master of the civilian ship has unique responsibilities in relation to safety: the “Master of a Ship must ensure the safety of all those on board.”⁶⁹ Regulation 43(3) of the International Convention for Safety of Life at Sea prevents anyone (including the owner of the ship) from restricting “the master of the ship from taking or executing any decision which, in the master’s professional judgement, is necessary for safe navigation and protection of the marine environment.” Thus, while the master owes a range of contractual, fiduciary, and trust duties to the shipowner⁷⁰ they are ultimately responsible for safety and are able to exercise discretion and deviate from orders in times of emergency.

In many ways a master of a ship or pilot of an aircraft is in the same position as the commander of a naval vessel or a military aircraft. They must use their individual judgment to take in information and determine the appropriate course of action. Although they are a part of a hierarchy and as such have duties up the chain of command, they are ultimately responsible for safety and can exercise discretion, deviating from orders in emergencies.

The connection between command and safety is further evident from the use of the term in the negative in relation to a “vessel not under command.” These are vessels unable to maneuver in the way required by the International Regulations for Preventing Collisions at Sea due to a mechanical issue, such as a loss of propulsion or an anchor not holding.⁷¹ Because of this, such vessels are safety risks—both to themselves and to others nearby.⁷²

68. *Navigation Act 2012* (Cth) s 14 (Austl.).

69. House of Representatives Standing Committee on Social Policy and Legal Affairs, *Troubled Waters: Inquiry into the Arrangements Surrounding Crimes Committed at Sea* 63 (June 2013) (Austl.).

70. JOHN A. C. CARTNER ET AL., *THE INTERNATIONAL LAW OF THE SHIPMASTER* (2009).

71. Convention on the International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 28 U.S.T. 3459. See, in particular, *id.* Annex: International Regulations for Preventing Collisions at Sea r. 3(f) (definition), and r. 18(a)(i), 18(b)(i), 18(c)(i), 18(d)(i), 27(a), 35(c) (substantive rules).

72. For a more detailed look at this concept, see Carlos Salinas et al., *Not Under Command*, 65 *JOURNAL OF NAVIGATION* 753 (2012).

C. Object and Purpose

The above snapshots of the concept of command suggests that we should treat it as a broad concept capable of an interpretation consistent with allowing uncrewed and autonomous devices to be classified as warships and military aircraft, and thus able to exercise belligerent rights. However, the purpose of the command requirement may warrant a more restrictive approach. The International Committee of the Red Cross (ICRC) provides one view of the rationale for the command requirement. The ICRC Commentary to the Third Geneva Convention explains that the requirement “serves a protective purpose, as a structured hierarchy has the capacity to maintain internal discipline and to ensure that operations are planned, coordinated and carried out in a manner consistent with humanitarian law. It also encourages accountability by commanders for the conduct of their subordinates.”⁷³

The commentary also explains what some of the indicators of “responsible command” include:

that the said commander regularly orders, plans and leads military operations, conducts or supervises training and other activities and represses violations by subordinates. It is important that commanders are in a position to ensure internal discipline, which in turn affects the way that soldiers conduct themselves in combat. However, the command structure need not be sophisticated or rigid.⁷⁴

Accepting this as the fundamental purpose of the command requirement would perhaps push us to adopt a more restrictive vision of the permissible distance between the person in command and those commanded. However, the ICRC view is focused on the conduct of soldiers (unsurprising in a commentary on the Third Geneva Convention) and, as such, is difficult to apply to the command of military platforms like warships or aircraft.

In any event, focusing solely on contemporary legal instruments that incorporate the command requirement—in particular, UNCLOS and Additional Protocol I—would provide an incomplete understanding of the motives and objectives of States. The provisions in question have considerable pedigree. The UNCLOS definition of warships, quoted earlier, derives from

73. Cameron et al., *supra* note 16, ¶¶ 1013–14.

74. *Id.*

a near-identical definition in the 1958 Convention on the High Seas.⁷⁵ That, in turn, gets its elements from the 1907 Hague Convention VII relating to the Conversion of Merchant Ships into Warships.⁷⁶ As will be seen, this Convention formalizes the conditions for the conversion of merchant ships to warships that were developed to maintain the State monopoly of violence at sea secured by the Paris Declaration of 1856.

While humanitarianism has undeniably been one of the drivers of the development of LOAC,⁷⁷ these provisions are better seen as part of an attempt by States to guard their monopoly over the use of force. This conformed with the enlightenment ideal that warfare should be fought by regular forces within conventional limits; a clash between “conflicting public powers, not private individuals” that would resolve the political dispute between the parties.⁷⁸

V. SUPPLEMENTARY MEANS OF INTERPRETATION

The command requirement in naval, land, and aerial warfare reflects the shared history of the applicable rules as well as the concerns the drafters of the requirements were trying to address by including them in the laws of war. The development of the tests that include the concept of command demonstrates that they were part of a wider attempt to use law to formalize the monopoly of States on violence, limiting the role private actors were permitted to play in armed conflict. More specifically, the command requirement helped ensure military equipment and units were sufficiently connected with the armed forces of a State and would act consistently with the interests of the State.

A few provisos to this vision of command are necessary. First, while this history does not necessarily constrain how the provisions should be understood today (particularly given the transformation on what sort of command is possible wrought by information technology), it does help demonstrate what the focus of States has been in the past and perhaps what it might be

75. Convention on the High Seas art. 8(2), Apr. 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 11.

76. Convention No. VII Relating to the Conversion of Merchant Ships into War-ships, arts. 1–4, Oct. 18, 1907, 205 Consol. T.S. 319 [hereinafter Hague Convention VII].

77. See PABLO KALMANOVITZ, *THE LAWS OF WAR IN INTERNATIONAL THOUGHT* 5 (2020); TREASA DUNWORTH, *HUMANITARIAN DISARMAMENT: AN HISTORICAL ENQUIRY* (2020).

78. KALMANOVITZ, *supra* note 77, at 131.

in the future. Second, the tests for belligerent qualification are reflective of the Eurocentric view of when a military is “legitimate.” While mercenaries and other private providers of military services ceased to play a major role in Europe, they were central to colonialism and the projection of, and competition between, State power outside of Europe.⁷⁹

A. Use of Private Actors in Warfare

The limits on belligerent rights in international law were developed in the context of the emergence of the modern nation State in Europe. The rules were part of the attempt of these States to use law to constrain the activities of non-State actors and were one of the legal techniques ensuring the actions of private military entrepreneurs were in the control of States. The scale of mercenary forces in the eighteenth and nineteenth centuries demonstrates why this would have been a particular concern of emerging European States. Military entrepreneurs offered their services to help their clients take over the territory of their rivals or pacify their own territory,⁸⁰ and well into the nineteenth century States were hiring entire military units of foreigners.⁸¹ In echoes of today’s use of private military companies, mercenaries were tolerated because they were a cost-effective way of using military force in offence or defense without the expense of a standing army.⁸²

79. James Cockayne, *The Global Reorganisation of Legitimate Violence: Military Entrepreneurs and the Private Face of International Humanitarian Law*, 88 INTERNATIONAL REVIEW OF THE RED CROSS 459, 467–68 (2006). Colonialism brought together the merchants and the military of European States into a common project to increase trade with other parts of the world. The access to “large-scale organised violence and state-controlled military technologies” allowed for the imposition of the regulatory framework of European trading onto the rest of the world, reducing commercial risks and increasing profits. *Id.* at 468–69; *See also* Nicholas Parillo, *The De-Privatization of American Warfare: How the U.S. Government Used, Regulated and Ultimately Abandoned Privateering in the Nineteenth Century*, 19 YALE JOURNAL OF LAW & THE HUMANITIES 1 (2007) (arguing that the United States only abandoned privateering when it embarked on a program of imperial expansion, for which privateering proved functionally inadequate).

80. Cockayne, *supra* note 79, at 465. Britain hired 28,000 men from the Hessians during the Napoleonic war, and during the Crimean War in the 1850s, the United Kingdom hired 16,500 German, Italian, and Swiss mercenaries.

81. ALEXANDER GILLESPIE, A HISTORY OF THE LAWS OF WAR. VOLUME 1: THE CUSTOMS AND LAWS OF WAR WITH REGARDS TO COMBATANTS AND CAPTIVES 47 (2011).

82. Cockayne, *supra* note 79, at 466.

However, mercenary forces were also a substantial risk to States. They sometimes had territorial ambitions,⁸³ or caused instability by looking for new employers after a war had concluded.⁸⁴ The risks of relying only on forces motivated by financial gain encouraged States to establish permanent armies and navies; “discrete, permanent entities charged with fulfilling state policy” made up of well-trained and disciplined soldiers under the command of professional officers.⁸⁵ This transformation was accompanied by an expansion of the scale on which war occurred: States began conscripting men into their armed forces, allowing these to become very large.⁸⁶ Battles ceased to be fought like a duel on the constrained physical space of a field, and instead started to involve all of society in a total war.⁸⁷

As armed conflict involved more people in more places it became more important to have some method for identifying those legitimately participating in the conflict, and others who were opportunists or criminals. In an era of political change and radical movements challenging the power of European elites, there was a range of people who may have wanted to take up arms against the existing power structures of States. This was unacceptable for States. In response, “[m]onarchs and emperors turned to international law as a tool to protect themselves against the potential consequences of placing ‘a gun on the shoulder of every socialist.’”⁸⁸ Eyal Benvenisti and Doreen Lustig argue this demonstrates the role the laws of wars played in the political leaders of States “securing their authority as the sole regulators in the international terrain.”⁸⁹

83. *Id.*

84. GILLESPIE, *supra* note 81, at 46–47.

85. John Childs, *Surrender and the Laws of War in Western Europe, c. 1660–1783*, in HOW FIGHTING ENDS: A HISTORY OF SURRENDER 153, 158 (Holger Afflerback & Hew Strachan eds., 2012).

86. GILLESPIE, *supra* note 81, at 42–46.

87. Eyal Benvenisti & Doreen Lustig, *Monopolizing War: Codifying the Laws of War to Reassert Governmental Authority, 1856–1874*, 31 EUROPEAN JOURNAL OF INTERNATIONAL LAW 127, 132 (2020).

88. *Id.* at 128.

89. *Id.* at 129.

B. Belligerent Rights at Sea

The first attempt to use international law to limit the role of private actors was in naval warfare.⁹⁰ The 1856 Declaration of Paris prohibited privateering, a maritime institution allowing private actors to participate and benefit individually from raiding the merchant vessels and property of an enemy State.⁹¹ Banning privateering required distinguishing these private vessels from State-owned and operated warships. The historical context for the formulation of the definition of the term “warship” demonstrates how the themes identified above—the increasing nature of State power and limitation of commercial actors to the “private” realm—are central to understanding the content of the legal regime.

Privateers were privately-owned and operated vessels that were outfitted as warships and authorized by States to exercise belligerent rights.⁹² Their use was an accepted part of naval warfare from the sixteenth to the mid-nineteenth century.⁹³ Privateers operated outside the regular navy of a State, acting independently to interfere with enemy commerce. In return, privateers were able to claim enemy property they captured as a “prize.”⁹⁴ Privateering allowed weaker naval powers⁹⁵ to use armed vessels without the expense of a dedicated navy. “[B]y preying on enemy merchant vessels and their cargoes, privateers disrupted trade and acted as an early form of commerce raider, forcing enemy merchant vessels to convoy and have enemy naval assets for trade protection.”⁹⁶ They operated at arms-length from government and allowed governments to “have ‘plausible deniability’ in situations where privateers exceeded the legal bounds of warfare at the time.”⁹⁷ Privateering was big business; they seized thousands of ships in wars across the eighteenth century.⁹⁸

90. Cockayne, *supra* note 79, at 473. This was probably because no State was able to exercise a monopoly of violence or control there.

91. Declaration Respecting Maritime Law, Apr. 16, 1856, 115 Consol. T.S. 1, 15 MARTENS NOUVEAU RECUEIL (ser. 1) 791, *reprinted in* 1 AMERICAN JOURNAL OF INTERNATIONAL LAW SUPPLEMENT 89 (1907).

92. David J. Bederman, *Privateering*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶ 1 (Rüdiger Wolfrum ed., 2008).

93. *Id.* ¶ 4.

94. Parillo, *supra* note 79, at 18–23.

95. Bederman, *supra* note 92, ¶ 5.

96. *Id.* ¶ 4.

97. *Id.*

98. GILLESPIE, *supra* note 81, at 52.

The 1856 Declaration of Paris prohibited privateering and attempted to limit the impact of war on maritime trade⁹⁹ by disallowing the seizure of enemy goods on neutral vessels or the seizure of neutral goods on enemy vessels.¹⁰⁰ The treaty was endorsed by Britain, France, Russia, Prussia, Austria, Sardinia-Piedmont, and the Ottoman Empire, and signed as part of the peace treaty ending the Crimean War. The restriction of what had been a highly effective military strategy to limit the maritime trade of the enemy was a major concession by the British,¹⁰¹ but what they gained in return was significant: the prohibition on privateers effectively stripped “weaker naval powers of their only means of naval defence.”¹⁰² The Paris Declaration was therefore a “package deal”—for the British, limiting the right to search neutral vessels was worth it in return for abolishing privateering.¹⁰³

Benvenisti and Lustig identify it as the first assertion in international law that individual actors, even if they are commissioned by a State, are not legitimate combatants.¹⁰⁴ The ban of privateering confirmed that war was a conflict between States, not private actors, and that from that point onwards, “governments would use the codified laws of war to consolidate their authority.”¹⁰⁵ This does not mean that concerns that we would now recognize as “humanitarian” concerns were not relevant. Rather, one reason offered in support of banning privateers was that personal profit was no longer an acceptable motivation in interstate armed conflict.¹⁰⁶

The ban of privateering was made effective by preventing privateers from accessing ports, and the withdrawal by States of their logistical support

99. Benvenisti & Lustig, *supra* note 87, at 138–39; JAN LEMNITZER, POWER, LAW AND THE END OF PRIVATEERING 8–9 (2014).

100. Romuald R. Haule, *Paris, Declaration of (1856)*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶ 2 (Rüdiger Wolfrum ed., 2008).

101. LEMNITZER, *supra* note 99, at 12.

102. *Id.* at 175. The British had been particularly concerned that the American Merchant Navy—at that time second largest in the world—could easily be transformed into privateers and threaten British hegemony on the ocean. The United States saw the risk and initially refused to accept the declaration due to the belief that privateering was an important part of their naval defences. *See also* Haule, *supra* note 100.

103. LEMNITZER, *supra* note 99, at 57; Haule, *supra* note 100, ¶¶ 11–12.

104. Benvenisti & Lustig, *supra* note 87, at 138; *see also* KALMANOVITZ, *supra* note 77, at 133–34.

105. Benvenisti & Lustig, *supra* note 87, at 138.

106. LEMNITZER, *supra* note 99, at 174.

made it impossible for it to continue.¹⁰⁷ But its abolishment did not end the role of privately owned vessels in maritime conflict. The use of merchant vessels to directly support military operations continued but was controversial, particularly in the Franco-Prussian War and the Russo-Japanese War.¹⁰⁸ In addition, the protection of neutral shipping offered by the declaration was undercut by submarine warfare and extensive lists of contraband.¹⁰⁹

In order to ensure that the State monopoly on violence remained effective at sea the prohibition on privateering was solidified at the Hague Conference VII of 1907 by the adoption of specific criteria distinguishing “warships” possessing belligerent rights from other vessels.¹¹⁰ Without doubt this effort was influenced by the development of belligerent qualifications for armed conflict on land, discussed below. Articles 1–4 of this Convention established clear criteria that had to be met before a merchant ship could have the “rights and duties” of a warship. It had to be under the “direct authority, immediate control, and responsibility” of the flag State; it had to bear the “external marks” that distinguished warships of the flag State; it had to be under the command of a commissioned officer of the State; and the crew had to be subject to naval discipline.¹¹¹

These requirements were repeated in Article 8(2) of the Convention on the High Seas with some textual changes. Most significantly, the Convention on the High Seas does not specifically include the requirement that warships be under the “direct authority, immediate control, and responsibility” of the State. Instead, it says simply that warships are those “belonging to the naval forces of a State.”¹¹² The reason for this omission is unclear. The Convention’s definition of “warships” was unchanged from the preparatory draft

107. *Id.* at 178. The last serious attempt to use privateers was by the Confederacy during the American Civil War, and while Confederate privateers did manage to take over forty Union prizes, it was not as widespread as in previous conflicts. GILLESPIE, *supra* note 81, at 62.

108. D. P. O’Connell, *The Law of Belligerency at Sea*, in 2 THE INTERNATIONAL LAW OF THE SEA 1094, 1106–7 (I. A. Shearer ed., 1988).

109. Haule, *supra* note 100, at 8.

110. Wolff Heintschel von Heinegg, *Warships*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW (Rüdiger Wolfrum ed., 2015).

111. Regulations Respecting the Laws and Customs of War on Land, annexed to Convention No. IV Respecting the Laws and Customs of War on Land arts. 1–4, Oct. 18, 1907, 36 Stat. 2227, T.S. No. 539 [hereinafter Hague Regulations].

112. Convention on the High Seas, *supra* note 75, art. 8(2).

provided by the International Law Commission in 1956.¹¹³ The report explains that the definition was based on Articles 3 and 4 of the Hague Convention VII,¹¹⁴ but does not reveal why the requirement of State control set out in Article 1 of Hague Convention VII was not considered sufficiently important to include in the Convention on the High Seas. It could be because the drafters thought the link to the State was adequately demonstrated by external marking and command by a naval officer. The *travaux préparatoires* provides no further insight.¹¹⁵

The other textual change to the definition of warships between Hague Convention VII and the High Seas Convention was more minor: the High Seas Convention requires the vessel to be “manned by a crew who are under regular naval discipline” rather than the simpler requirement of the Convention on the High Seas: “The crew must be subject to military discipline.”¹¹⁶ From here, that definition found its way into Article 29 of UNCLOS, which requires warships to be “manned by a crew which is under regular armed forces discipline.”¹¹⁷

C. *Belligerent Rights on Land*

The belligerent qualifications found in LOAC for land forces served a similar purpose to the prohibition on privateering: to limit those engaging in armed conflict to those controlled by (European) States by restricting access to the prisoner of war regime to people fighting on behalf of and in the control of recognized States. They established the conditions on which non-State actors could lawfully wage war and when States were permitted to authorize “ununiformed, self-funded, and self-armed fighters to wage war” on their

113. Int'l Law Comm'n, Rep. on the Work of its Eighth Session, U.N. Doc. A/3159, reprinted in 2 YEARBOOK OF THE INTERNATIONAL LAW COMMISSION 253 (1956), U.N. Doc. A/CN.4/104.

114. *Id.* at 280.

115. An unsuccessful proposal by Portugal to include an additional article in the Convention clarifying the categorization of ships would have included a comprehensive definition of “government ships” but the proposed wording was that they be under *control* of an officer duly commissioned by his government. See Portugal, Revised Proposal on an Additional Article, U.N. Doc. A/CONF.13/C.2/L.38/Rev.2 (Apr. 9, 1958), reprinted in 4 OFFICIAL RECORDS OF THE UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA 126, U.N. Doc. A/CONF.13/40 (1958).

116. Compare Convention on the High Seas, *supra* note 75, art. 8(2), with Hague Convention VII, *supra* note 76, art. 4.

117. UNCLOS, *supra* note 22, art. 29.

behalf.¹¹⁸ Recognition as a lawful combatant allowed the fighter to avoid treatment as a criminal and, at worst, summary execution. The successors of these rules are found in the contemporary requirements for combatant status in the Third Geneva Convention.¹¹⁹

The first effort to codify the treatment of enemy combatants was during the American Civil War, where the Lieber Code provided that all members of the enemy armed forces, “all men who belong to the rising *en masse* of a hostile country,” and all other persons “belonging to groups attached to the army” must be treated as prisoners of war.¹²⁰ The Lieber Code expressly excluded individuals who were fighting “without commission, without being part and portion of the organized hostile army, and without sharing continuously in the war.” It said these people could be “treated summarily as highway robbers or pirates.”¹²¹

A more formal four-part test for qualification as a prisoner of war was drafted in 1874 in Brussels.¹²² Fifteen States took part in a “lively debate” about the status of irregular or “unorganised forces, without a superior commanding officer, without direction, without rules, led on only by a patriotic impulse [and who] could not observe the laws and customs of war of which they are ignorant.”¹²³ While the conference purported to be humanitarian (States argued that non-commanded troops would not observe the laws of war¹²⁴) this was not the exclusive focus. In the analysis of Benvenisti and Lustig, the dominant governments were seeking to:

- (i) have international law regulate only inter-state warfare, (ii) tightly regulate access to the battlefield and eliminate any other insurrectional challenge to the participating states, (iii) ensure the stability of the European legal

118. Tracey Leigh Dowdeswell, *The Brussels Peace Conference of 1874 and the Modern Laws of Belligerent Qualification*, 54 OSGOODE HALL LAW JOURNAL 805, 807 (2017).

119. Convention (III) Relative to the Treatment of Prisoners of War art. 4, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135.

120. Cameron et al., *supra* note 16, ¶ 952; *see also* KALMANOVITZ, *supra* note 77, at 132.

121. U.S. Department of War, Instructions for the Government of Armies of the United States in the Field, General Orders No. 100, art. 82, Apr. 24, 1863 (Lieber Code); Cameron et al., *supra* note 16, ¶ 952.

122. *See* Project of an International Declaration concerning the Laws and Customs of War, Brussels, Aug. 27, 1874, *reprinted in* THE LAWS OF ARMED CONFLICT 23 (Dietrich Schindler & Jiri Toman eds., 4th ed. 2004) [hereinafter Brussels Declaration].

123. Extract from speeches of German and Russian delegates, *quoted in* J. M. SPAIGHT, WAR RIGHTS ON LAND 50 (1911).

124. Benvenisti & Lustig, *supra* note 87, at 154–55.

political and economic order in occupied territory, while (iv) offering little protection to civilians from the harms of war.¹²⁵

Most importantly for our purposes, the Declaration used the test for belligerent qualification to keep civilians away from the battlefield. Article 9 of the Declaration assigned the “laws, rights and duties of war” to armies. “Militia and volunteer corps” only qualified if they fulfilled four conditions: that they “be commanded by a person responsible for his subordinates;” “have a fixed distinctive emblem recognizable at a distance;” “carry arms openly;” and “conduct their operations in accordance with the laws and customs of war.”¹²⁶ These requirements benefited those States with large standing armies, most significantly Germany.¹²⁷ It was resisted at first by smaller governments including Belgium, the Netherlands, and Switzerland, who thought it would lead to the exclusion of their own militias and freedom-fighters from the battlefield. It was also opposed by the UK, who saw that it worked to the advantage of States with large permanent armies. The final outcome reflected a compromise whereby the text would be silent on the right to resist both an advancing army and occupation, thus allowing smaller States to claim the right to resist as part of customary international law and Germany to maintain its view that any resisters could be executed.

Benvenisti and Lustig argue that it was States’ fear of “unruly civilians” that led to the adoption of the four-part test. The fears of governments about the threat to order posed by political movements was crystallized by the Franco-Prussian War and the Paris Commune.¹²⁸ The four-part test was an “inter-elite endeavour aimed at enhancing the collective control of European governments over their respective societies.”¹²⁹ By establishing a special category of legitimate combatants that was reliant on a demonstrated connection with and control by a State (as seen in the command requirement), the Declaration ensured that it was only those people who were part of the military that had the benefits of the law’s protection.¹³⁰ Similarly, Tracey Dowdeswell argues the rules were introduced to “strengthen state power over the military, not to limit it,” a move that had the effect of

125. *Id.* at 155.

126. Brussels Declaration, *supra* note 122, art. 9.

127. Benvenisti & Lustig, *supra* note 87, at 159.

128. *Id.*

129. *Id.* at 166 (citations omitted).

130. *Id.*

privileging the standing armies of the great military powers and consolidating the state's power over the use of military force. Permitting civilians to engage in an insurgency against an invading power assisted a weak nation to defend itself against a stronger. Both rules were the result of compromise and were intended to work together to support the European balance of power.¹³¹

The Brussels Declaration was never ratified by the signatories, but it set the basis for future discussions. Its definition of qualified belligerents was adopted essentially unchanged at the 1899 Hague Peace Conference,¹³² and the 1907 Hague Regulations added the requirement that those who took up arms in a *levée en masse* carry their arms openly.¹³³ The definition was expanded in the 1929 Geneva Convention on Prisoners of War to include all persons captured in the course of maritime or aerial war.¹³⁴

The status of irregular forces was again contentious during the drafting of the 1949 Geneva Conventions. At both the 1947 Conference of Government Experts and the 1949 Diplomatic Conference, “[p]ossible conditions that were discussed included control of territory, responsible command, capability of being communicated with and of responding to communications, and/or whether there should be a minimum number of combatants.”¹³⁵ Ultimately States decided to reuse the conditions that originated in the Brussels Declaration and were codified in the 1899 and 1907 Hague Regulations.¹³⁶

D. Belligerent Rights in the Air

The legal status of rules on aerial belligerent rights are more ambiguous. There have been several attempts to formalize the definition for military aircraft, generally using the definition of warships as the basis. In the aftermath of WWI, the Paris Convention distinguished between State and private air-

131. Dowdeswell, *supra* note 118, at 813.

132. Regulations Respecting the Laws and Customs of War on Land art. 1, annexed to Convention No. II with Respect to the Laws and Customs of War on Land, July 29, 1899, 189 C.T.S. 429, 32 Stat. 1803, T.S. 403.

133. 1907 Hague Regulations, *supra* note 111, art. 2.

134. Convention Relative to the Treatment of Prisoners of War art. 1(2), July 27, 1929, 47 Stat. 2021, 118 L.N.T.S. 343.

135. Cameron et al., *supra* note 16, ¶ 1010.

136. *Id.*

craft, with “military aircraft” being a subset of “state aircraft” that could exercise belligerent rights.¹³⁷ Article 31 of the Convention provided that “every aircraft commanded by a person in military service detailed for the purpose shall be deemed to be a military aircraft.”¹³⁸

The 1923 Hague Rules of Aerial Warfare clarified the meaning of “military aircraft” by adopting parts of the definition of “warship” set out in the 1907 Hague Convention VII. The Hague Rules provided that military aircraft are those “bearing an external mark indicating its nation and military character,” under “the command of a person duly commissioned or enlisted in the military service of the State,” “exclusively crewed by members of the military,” and finally, have members wearing a uniform.¹³⁹ Belligerent rights afforded to military aircraft under the Hague Rules include the right to engage in hostilities in accordance with the laws of war.¹⁴⁰ While the Hague Rules (which had been drafted by a commission of jurists) were never incorporated into treaty, they are generally treated as reflecting customary international law.¹⁴¹

E. *Interim Conclusion*

This brief (and necessarily selective) account of the history of the development of belligerent qualifications gives some guidance for reading the command requirement. It suggests we should see the command requirement as a legal technique securing the connection between the on-the-ground military actors with the strategic intent of the State. This historical context shows that a key impetus behind the provisions using this notion was to ensure that

137. Convention Relating to the Regulation of Aerial Navigation, Oct. 13, 1919, 11 L.N.T.S. 173 [hereinafter Paris Convention]; see also Michel Bourbonniere & Louis Haeck, *Military Aircraft and International Law: Chicago Opus 3*, 66 JOURNAL OF AIR LAW & COMMERCE 885, 890 (2001).

138. Paris Convention, *supra* note 137, art. 31.

139. Hague Rules of Aerial Warfare, *supra* note 21, art. 15; see also Ian Henderson & Bryan Cavanagh, *Unmanned Aerial Vehicles: Do They Pose Legal Challenges?*, in NEW TECHNOLOGIES AND THE LAW OF ARMED CONFLICT 193–212, 197 (Hitoshi Nasu & Robert McLaughlin eds., 2014).

140. Hague Rules of Aerial Warfare, *supra* note 21, arts. 13, 16.

141. Henderson & Cavanagh, *supra* note 139, at 195; Jean de Preux, *Protocol I—Article 42—Occupants of Aircraft*, in COMMENTARY ON THE ADDITIONAL PROTOCOLS TO THE GENEVA CONVENTIONS 493, ¶ 1637 (Yves Sandoz, Christophe Swinarski, & Bruno Zimmermann eds., 1987).

war was fought between regular forces controlled by States for “valid” reasons of State. While this could be seen to have some positive disciplinary and humanitarian consequences, they are not related to commanders controlling every aspect of their subordinates’ activities. Rather, the purported humanitarian benefits accrued because the monopoly of violence would be retained by the authorized political actors of the State, rather than mercenaries, revolutionaries, or rebels.

VI. SUBSEQUENT PRACTICE

As provided for in Article 31(3) of the VCLT, subsequent agreements and practice are relevant to the interpretation of a treaty. Subsequent practice in the application of the notion of command has clearly displayed an acceptance of an increased temporal and geographic gap between the commander and their subordinates, including in the control of military platforms, even though there remain some concerns when it comes to the deployment of lethal force. This can be seen in the ongoing discussions about the future regulation of autonomous weapon systems (AWS) and in interpretations of the Hague Rules and UNCLOS.

A. *Autonomous Weapon Systems*

As mentioned at the outset of this article, international discussions are underway about whether new law is needed to regulate the use of AWS. The GGE LAWS has been discussing the potential and prospects for a new instrument dealing with AWS. The notion of command has not been discussed in any detail during the GGE LAWS discussions. A number of States have made observations that an AWS should be part of the chain of command to ensure compliance with LOAC.¹⁴² Others have observed that “command

142. *See, e.g.*, Federal Foreign Office (Ger.), Commentary on “Operationalizing all Eleven Guiding Principles at a National Level” as Requested by the Chair of the 2020 Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems Within the Convention on Certain Conventional Weapons 3 (June 26, 2020), <https://documents.unoda.org/wp-content/uploads/2020/07/20200626-Germany.pdf>; France, Operationalization of the 11 Guiding Principles at National Level—Comments by France, <https://documents.unoda.org/wp-content/uploads/2020/07/20200610-France.pdf> (last visited Sept. 30, 2022); Finland, Considerations on the Appropriate Level of Human Involvement in LAWS 2 (June 2020), <https://documents.unoda.org/wp-con->

and control” in relation to AWS should be further explored.¹⁴³ The majority of the conversations about AWS, however, have been about control. Indeed, one of the key issues that is under discussion is what level of human oversight or control is required by current international law and whether this is sufficient.

Although no agreement has yet been reached, and the end result of the GGE LAWS process is not yet clear, the inclusion of the language of “chain of command and control” in the Chair’s paper in 2021¹⁴⁴ suggests that the concept of command may play a role in how the legal regulation develops. In particular, there is clearly some convergence between the concept of command discussed in this article and the concept of “meaningful human control” which has been the focus of so much discussion at the GGE LAWS, but the relationship between the two is unclear.

In the context of AWS, many States have pledged to maintain a high degree of human control. For example, in its Joint Doctrine Publication on Unmanned Aircraft Systems, the United Kingdom Ministry of Defence has stated that the use of kinetic force “will always be under human control as

tent/uploads/2020/07/20200706-Finland.pdf; Spain, Commentaries on National Implementation of the Guiding Principles on Laws 1, <https://documents.unoda.org/wp-content/uploads/2020/07/20200706-Spain.pdf> (last visited Sept. 30, 2022); Switzerland, Switzerland’s Commentary on Operationalizing the Guiding Principles at a National Level 3 (Aug. 25, 2020), <https://documents.unoda.org/wp-content/uploads/2020/08/20200825-Switzerland.pdf>.

143. *See, e.g.*, Japan, Commentary on the Operationalization of the Guiding Principles Affirmed by the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems at National Level, <https://documents.unoda.org/wp-content/uploads/2020/09/20200828-Japan.pdf> (last visited Sept. 30, 2022); Statement of Austria on Further Consideration of the Human Element in the Use of Lethal Force; Aspects of Human-Machine Interaction in the Development, Deployment and Use of Emerging Technologies in the Area of Lethal Autonomous Weapons Systems 1, [https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_\(2018\)/2018_LAWS6b_Austria.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2018)/2018_LAWS6b_Austria.pdf) (last visited Sept. 30, 2022).

144. Draft Elements on Possible Consensus Recommendations in Relation to the Clarification, Consideration and Development of Aspects of the Normative and Operational Framework on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, Revised Chair’s Paper (Sept. 20, 2021), <http://www.apc.org.nz/pma/ch-gge20sept21.pdf>.

an absolute guarantee of human oversight and authority and accountability.”¹⁴⁵ However, the document also makes it clear that some level of automation (defined as the capacity to carry out complicated tasks as opposed to complex decision-making) is acceptable in weapons systems, particularly defense systems where a person has set the parameters of its operation.¹⁴⁶ It remains unclear, however, whether the kind of control envisaged over AWS would also be required in relation to the (non-targeting) functions of military platforms. Given the LAWS GGE’s focus on the “critical functions” of weapon systems and the ethical concerns about the use of lethal forces, the debates about meaningful human control in that forum would not seem to have a direct bearing on the ability of States to automate the navigation of warships and military aircraft.

B. *Military Aircraft*

When it comes to aerial platforms, subsequent State practice suggests that the four criteria contained in the Hague Rules to articulate what constitutes a military aircraft are flexible and may even be losing significance. The significant number of States adopting uncrewed aerial vehicles for the purposes of conducting hostilities suggests that there does not have to be a crew on board the aircraft.¹⁴⁷ Furthermore, the necessity for visual aircraft markings “may” be “losing its legal significance”¹⁴⁸ given that the small size of some craft is rendering these markings ineffectual.¹⁴⁹

It would be unsurprising for the command requirement to be treated in a similar way. The last few decades have seen legal acceptance of greater

145. UNITED KINGDOM MINISTRY OF DEFENCE, JOINT DOCTRINE PUBLICATION 0-30.2, UNMANNED AIRCRAFT SYSTEMS 42 (2017); for some commentary, see Michael Savage, *Humans will Always Control Killer Drones, Says Ministry of Defence*, THE GUARDIAN (Sept. 9, 2017), <https://www.theguardian.com/politics/2017/sep/09/drone-robot-military-human-control-uk-ministry-defence-policy>; James Vincent, *UK Government Says Humans Will Always be in Charge of its Robot Weapon Systems*, THE VERGE (Sept. 12, 2017), <https://www.theverge.com/2017/9/12/16286580/uk-government-killer-robots-drones-weapons>.

146. UK MINISTRY OF DEFENCE, *supra* note 145, at 42.

147. Henderson & Cavanagh, *supra* note 139, at 198–99; HARVARD MANUAL, *supra* note 21, at 38.

148. Henderson & Cavanagh, *supra* note 139, at 198.

149. For a more detailed discussion of military aircraft markings, see Ian Henderson, *International Law Concerning the Status and Marking of Remotely Piloted Aircraft*, 39 DENVER JOURNAL OF INTERNATIONAL LAW & POLICY 615 (2011).

automation across the aviation sector. Indeed, “most flights can only be performed adequately with the aid of automation.”¹⁵⁰ This has manifested in the regulatory environment. The International Civil Aviation Organization (ICAO), for example, has recognized that “[e]ach category of aircraft [e.g., helicopter, ornithopter, rotorcraft] will potentially have un[crewed] versions in the future.”¹⁵¹ ICAO has further clarified that the definition of aircraft includes uncrewed aircraft that are programmed and autonomous: “An [uncrewed] aerial vehicle is a pilotless aircraft . . . which is flown without a pilot-in-command on-board and is either remotely and fully controlled from another place (ground, another aircraft, space) or programmed and fully autonomous.”¹⁵²

Further, the *Harvard Manual*, which aims to be a restatement of the law as it currently stands,¹⁵³ provides that autonomous functionality is not mutually exclusive with the notion that the aircraft must be “commanded by a member of the armed forces.”¹⁵⁴ Consistent with State practice (particularly, but not exclusively, of the United States), the *Harvard Manual* explains that “autonomously operating” uncrewed aerial vehicles are military aircraft (a concept that requires command in its definition) “provided that their programming has been executed by individuals subject to regular armed forces control.”¹⁵⁵

C. Warships

Remotely controlled and autonomous vessels have featured less prominently in public discussions than aerial platforms. But there is a broad range of such devices in use and under consideration and development, and they have a wide range of different objectives and applications. Indeed, some have argued that the development of autonomous and uncrewed devices would go

150. PABLO MENDES DE LEON, INTRODUCTION TO AIR LAW 302 (10th ed. 2017).

151. INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO), UNMANNED AIRCRAFT SYSTEMS para. 2.5 (2011).

152. *Id.* para. 2.1 (referencing both the Global Air Traffic Management Operational Concept (Doc 9854) and the 35th Session of the ICAO). For further discussion, see Eve Massingham, *Radio Silence: Autonomous Military Aircraft and the Importance of Communication for their Use in Peace Time and in Times of Armed Conflict under International Law*, 1 ASIA-PACIFIC JOURNAL OF INTERNATIONAL HUMANITARIAN LAW 184 (2020).

153. HARVARD MANUAL, *supra* note 21, at x.

154. *Id.* at 38.

155. *Id.* at 38–39.

some way to rendering some crewed vessels, such as submarines, obsolete.¹⁵⁶ Relatively large and autonomous uncrewed underwater vehicles (UUVs), like the U.S. Navy's Orca XLUUV, can cruise submerged for up to six months with minimal human intervention.¹⁵⁷ While the exact role these devices will play in naval conflict remains to be seen, it might be as a weapons platform searching for and destroying other submarines.¹⁵⁸ The U.S. Navy's *Sea Hunter* and *Seahawk*—which, at the time of writing, are slated to deploy to the Middle East¹⁵⁹—are uncrewed surface ships designed to assist finding enemy submarines.¹⁶⁰ They are forty meter long trimarans with a substantial payload capacity, which is currently being used to carry an array of sensors¹⁶¹ but they could also be used to carry and deploy weapons. The United States is not alone in exploring the potential of uncrewed and autonomous technologies: the Chinese are developing similar uncrewed vehicles.¹⁶²

Whether or not uncrewed maritime vehicles will be treated as warships remains debatable.¹⁶³ The key difficulty is Article 29 of UNCLOS, which provides that warships must be, *inter alia*, “under the command of an officer” and “manned by a crew which is under regular armed forces discipline.”¹⁶⁴ While the development of sub-hunting vessels like *Sea Hunter* and *Seahawk* suggests that they may one day be equipped with the capacity to deploy weapons (and thus be intended for the exercise of belligerent rights), no State has yet used uncrewed maritime vehicles in this way. Legal scholars have differing views. Rob McLaughlin argues that while remote command might be possible, when read with the crewing requirement, it appears that

156. David Hambling, *The Nuclear Submarine Fight Is Totally Pointless*, WIRED UK (Sept. 29, 2021), <https://www.wired.co.uk/article/aukus-nuclear-submarines-australia-warfare>.

157. *Id.*

158. *Id.*

159. Joseph Trevithick, *New Navy Task Force Will Be All About Bringing Unmanned Capabilities To The Middle East*, THE DRIVE (Sept. 8, 2021), <https://www.thedrive.com/the-war-zone/42302/new-navy-task-force-will-be-all-about-bringing-unmanned-capabilities-to-the-middle-east>.

160. Hambling, *supra* note 156.

161. Trevithick, *supra* note 159.

162. Hambling, *supra* note 156.

163. Simon McKenzie, *When is a Ship a Ship? Use by State Armed Forces of Un-crewed Maritime Vehicles and the United Nations Convention on the Law of the Sea*, MELBOURNE JOURNAL OF INTERNATIONAL LAW, Dec. 2020, at 1, 25–29.

164. UNCLOS, *supra* note 22, art. 28.

being classed as a warship will require people onboard the device.¹⁶⁵ Others are more willing to allow for the possibility, noting the developments in relation to air warfare mentioned above¹⁶⁶ and the likelihood of this technology being used in future armed conflict between technologically advanced navies.¹⁶⁷

Under the auspices of the International Maritime Organization, States are currently assessing what regulatory changes are necessary to allow for the use of autonomous ships.¹⁶⁸ One of the foci of this work is the meaning of the term “master,” which gives rise to similar problems as “command,”¹⁶⁹ as noted above. If this work clarifies that the international rules of the sea apply in a comprehensive way to uncrewed maritime vehicles—or expands the legal regime to the same effect—it seems fair to anticipate that States will do the same when it comes to military naval vessels.

VII. CONCLUSION

The level of connection required between the commander and what they command is not fully legally defined and the temporal and geographical limits of command—if there are any—are unclear. Put differently, figuring out the extent to which an uncrewed or autonomous device is under command requires identifying the point at which it *ceases* to be under command because the device is too far away, was given instructions too long ago, or is too independent. In many ways, this is a classic problem of interpreting international law: how should a term or concept from the past be understood to apply now? But it also raises a broader question: does the existing law adequately capture developments in the technology?

165. Robert McLaughlin, *Unmanned Naval Vehicles and the Law of Naval Warfare*, in NEW TECHNOLOGIES AND THE LAW OF ARMED CONFLICT 229, 239 (Hitoshi Nasu & Robert McLaughlin eds., 2014); see also Robert Veal, Michael Tsimplis & Andrew Serdy, *The Legal Status and Operation of Unmanned Maritime Vehicles*, 50 OCEAN DEVELOPMENT & INTERNATIONAL LAW 23, 30 (2019).

166. Andrew Norris, *Legal Issues Relating to Unmanned Maritime Systems* 30 (2013), <https://www.iqpc.com/media/1002182/50661.pdf>.

167. McKenzie, *supra* note 163, at 28; Norris, *supra* note 166, at 28–30; Heintschel von Heinegg, *supra* note 110, at 16.

168. Int'l Maritime Org., Outcome of the Regulatory Scoping Exercise for the Use of Maritime Autonomous Surface Ships (MASS), IMO Doc. MSC.1/Circ.1638 (June 3, 2021).

169. *Id.* ¶ 5.5 (identifying the need to clarify the meaning of the terms “master,” “crew,” and “responsible person” as a high-priority issue).

As earlier noted, concepts of command have long recognized a geographical separation between the commander and their subordinates as part of the reality of military action.¹⁷⁰ There is no question that commanders not physically present can still be in command. In fact, it is clear that commanders are expected to delegate tasks and, in some situations, leave the method for how their intent is to be accomplished up to their subordinate. Some of these tasks—such as navigating from one place to another—lend themselves well to increased autonomy.¹⁷¹ Autonomous technologies have the potential to assist commanders by “allow[ing] humans to focus on command (that is, decision-making), rather than control (that is, directly operating the systems).”¹⁷²

We submit that the command requirement for warships and military aircraft should be seen as a legal mechanism to connect maritime and aerial devices to the intent of a State. This approach has important implications for the use of autonomous systems. It suggests that it is immaterial whether the commander is physically on board the device or even in real-time remote control of the device. Instead, one should focus on whether the system can be understood as acting on behalf of a State by assessing whether the person who is deciding (even in general terms) where the device goes and what it does when it gets there is part of a State military apparatus.

The inclusion of command in international law dates from the beginning of the modern laws of war in the mid-nineteenth and early twentieth centuries. Looking at the changing role of private actors in the organization of violence in this time—the “military entrepreneurs”—demonstrates why this would have been a particular concern.¹⁷³ In addition, limiting belligerent rights to military personnel and platforms embedded in a chain of command offered a substantial advantage to major European powers with advanced militaries at the expense of smaller and poorer States. We have shown that there is nothing in the history of the concept of command in international law, or in contemporary military doctrines of command, that suggests that a

170. Henderson & Cavanagh, *supra* note 139, at 195; *see also* Brendan Gogarty & Meredith Hagger, *The Laws of Man over Vehicles Unmanned: The Legal Response to Robotic Revolution on Sea, Land and Air*, 19 JOURNAL OF LAW, INFORMATION & SCIENCE 73, 76–82 (2008).

171. DAVID S. ALBERTS & RICHARD E. HAYES, UNDERSTANDING COMMAND AND CONTROL 22 (2006).

172. Marcus Hellyer, *Accelerating Autonomy: Autonomous Systems and the Tiger Helicopter Replacement* 9, <https://www.aspi.org.au/report/accelerating-autonomy-autonomous-systems-and-tiger-helicopter-replacement> (Dec. 2019).

173. Cockayne, *supra* note 79, at 460.

temporal and geographical gap between the commander and the object, system, or person under command is unacceptable. The key is that the commander determines the mission of the commanded object and that the commander belongs to a group that is permitted to exercise belligerent rights.

The better view is that command is a fluid concept that clearly does not require a commander to be making every decision or even to be present at the making of every decision. Command will be appropriately managed for the purposes of accountability—which is one of the central concerns of the legal regime—when the commander has undertaken the relevant steps to be reasonably confident that any individual or device under their command will do what she intends them to do.¹⁷⁴ This does not mean that every transgression, or every bad, unexpected, outcome, means the commander has erred. If a commander has pre-programmed a device to operate in a particular way, and chosen to use this device in appropriate and lawful circumstances, then even if it may act in unexpected ways (just like a well-trained soldier can sometimes fail), then the commander who takes the appropriate after-action steps to rectify any transgressions is acting consistently with their obligations.

This seems to be consistent with how States are deploying devices with some degree of autonomy. Indeed, a number of States are already exploiting these technologies and are allocating vast resources to develop the capabilities of uncrewed devices. Clearly, States do and will increasingly aim to use systems where the person responsible for the use of force is physically and temporally separated from the device which delivers the desired effect. While it might not hold for every autonomous device or every circumstance, where an adequate connection can be shown with a human operator, the device will still be under command as there will be a specific identifiable commander who is directing its activities and accountable for its behavior.

174. Eve Massingham & Simon McKenzie, *Testing Knowledge: Weapons Reviews of Autonomous Weapons Systems and the International Criminal Trial*, in FUTURES OF INTERNATIONAL CRIMINAL JUSTICE 177 (Emma Palmer et al. eds., 2021).