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## Adjusting the Aperture: The International Law Case for Qualifying Unmanned Vessels as Warships

*Malgorzata Materna*

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# Adjusting the Aperture: The International Law Case for Qualifying Unmanned Vessels as Warships

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The thoughts and opinions expressed are those of the author and not necessarily those of the U.S. government, the U.S. Department of the Navy, or the U.S. Naval War College.

## I. INTRODUCTION

[Their use], whilst of small value for defensive purposes, leads inevitably to acts which are inconsistent with the laws of war and the dictates of humanity, and the Delegation desires that united action should be taken by all nations to forbid their maintenance, construction, or employment.<sup>1</sup>

This statement—taken from a report submitted to the Conference on Limitation of Armament in 1921—denoted contemporaneous concerns about the use of submarines in naval warfare. Multifaceted efforts were made in subsequent years to limit or abolish their production and development. They were branded uncivilized and banned from the territorial seas of certain States. Several international summits were convened, in significant part, to contemplate restraints on their use.

A century later, a multitude of States—from the Democratic People’s Republic of Korea to Italy to Ecuador—count manned submarines as part of their fleets.<sup>2</sup> Their employment by a sizable segment of the international community is not the outcome of a new international treaty drafted as a result of the conference to which the above words were addressed. Neither is it a reflection of significant changes in the law of naval warfare to impose limitations on their development.

Rather, the widespread acquiescence to submarines as an acceptable means of warfare is, at least in part, a consequence of the recognition that technical advancements in means and methods of warfare are not only normal but expected, so long as the technologies may be used in compliance with legal principles applicable during an armed conflict. As new devices and technologies come to be constructed, acquired, and operated, with increasing frequency and by a growing portion of the international community, we become accustomed to regarding them much as we would any other means or method of warfare, and applying international law to their *use*. And while

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1. Comments of British Delegation, Conference on the Limitation of Armaments held at Washington, Nov. 12, 1921 to Feb. 6, 1922, *in* REPORT OF THE CANADIAN DELEGATE INCLUDING TREATIES AND RESOLUTIONS, Sessional Paper No. 47, at 23 (1922).

2. *Submarine Fleet Strength by Country (2023)*, GLOBAL FIREPOWER REPORT, <https://www.globalfirepower.com/navy-submarines.php> (last visited Aug. 3, 2023).

initial concerns may be expressed—indeed, anticipated—with the development of any new technology, our perspective adapts to the advancements over time, and we come to accept them as features of a modern battlespace.

We currently stand at the threshold of another remarkable progression in the law of naval warfare—the dawn of autonomy in maritime navigation and the growing evolution of artificial intelligence in weapon system development. As we have witnessed in recent conflicts, the future is unlikely to belong to exceptionally large, physically manned, and tough-to-maneuver platforms. Many States are instead conceptualizing a maritime battlefield dominated by autonomy and artificial intelligence and are investing in unmanned technologies at an exceptionally rapid rate.

It is noteworthy that the use of some degree of autonomy in military applications is not new. Both autonomy and automation of certain functions in weaponry and means of warfare have been employed by the armed forces of a number of States for decades, including as features of weapon systems themselves. How these technologies may be used in combat does appear to be changing, however, compelling legal interpretations to adapt with them.

The goal of this article is not to suggest that the rules and principles of the law of naval warfare should be amended to account for vessels without humans physically onboard, nor is it to recommend the creation of a separate legal framework for vessels employing increasing levels of autonomy and artificial intelligence in their operations. Rather, the purpose of this article is to demonstrate that vessels without humans physically onboard can, should, and already do fit existing legal frameworks—including, when flag State requirements are met—the longstanding international law definition of a “warship,” with all of the rights and responsibilities that attach. While clarifications to current restatements of law of naval warfare principles may be useful, wholesale changes are unnecessary and unlikely to be observed by the very States that have embraced unmanned technology and are forging ahead with its acquisition.

This article will begin by outlining the specific rights and obligations of warships that may benefit States seeking to employ unmanned vessels in naval warfare, not unlike the circumstances a century ago when submarines were considered. It will then delve into the international law definition of a “warship” and evaluate how an unmanned vessel fits the existing designation, based on a reading compatible with the prevailing approach to the interpretation of international treaty language that considers the term’s historical context and purpose. This assessment will also consider the notion that unmanned vessels were not anticipated at the time of the conception of the

warship paradigm and will explain why this is a flawed premise on which to rely as a pretext for establishing a new regime to account specifically for unmanned vessels. The increased use of submarines by States throughout the twentieth century will be occasionally referenced as an instructive model for considering the application of the term “warship” to emerging technologies.

## II. NOTE ON THE APPLICABLE LEXICON

At the outset, addressing the terminology pertinent to this discussion is essential. Numerous terms are used in scholarly articles, media outlets, formal State-level documents, and other publications in reference to vessels that do not have personnel physically on board. There is currently no legal or other broadly accepted document at the international level delineating appropriate references, nor is there evidence of widespread and consistent usage of precise terms relating to unmanned vessels for naval warfare purposes.<sup>3</sup>

As will be discussed below, the words “ship” and “vessel” will be used interchangeably throughout this article, as there is no substantiated legal distinction between these terms in international law. The terms are intended to encompass seagoing craft that are capable of independent navigation, whether on the surface or below it, in compliance with flag State regulations. While other words and expressions are commonly used—such as “unmanned vehicles” or “autonomous ships”—this article does not favor the use of those terms, as they tend to imply either a significantly broader or narrower category of craft than that to which the warship designation should apply.<sup>4</sup> The term “unmanned vessel” or “unmanned ship,” whether surface or subsurface, most closely aligns with current restatements of the law of

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3. The International Maritime Organization (IMO) is actively engaged in addressing issues related to compliance with its treaties as they relate to “maritime autonomous surface ships” (MASS). While the term MASS is defined by the IMO, it is, by wording and intent, limited to surface vessels. The objective of this article is to address all unmanned ships, including those operating below the surface, which would most closely align with the prevailing definition of a warship.

4. For instance, the term “unmanned vehicles” (including “unmanned surface vehicles” and “unmanned underwater vehicles”) is so broad it is sometimes used to refer collectively to watercraft as varied as wind-powered gliders floating independently and surface ships capable of autonomously navigating long distances and potentially discharging weapon payloads. Likewise, “autonomous ships” also seems unsatisfactory, given that it is not clear which aspects would be “autonomous”—and, moreover, implies that the ships are navigating and executing missions entirely without human oversight.

naval warfare. To avoid any confusion or conflation of terms, no abbreviations or acronyms will be used.

While often used interchangeably with the word “unmanned,” the term “uncrewed” is not favored in reference to unmanned vessels for the purposes of the law of naval warfare. As will be examined closely in the sections that follow, vessels qualifying for the rights accorded to warships are, in fact, crewed—even if they do not have personnel physically on board. While the use of the word “uncrewed” has become popular in colloquial usage (perhaps due to appearing less androcentric), it would not be appropriate to refer to vessels that do have personnel performing crew functions as “uncrewed,” even if those crews are fulfilling their responsibilities remotely or if some traditional crew functions have been automated or rendered unnecessary.

Finally, it is important to note that not every unmanned system operating in the maritime domain should be viewed as a “ship” or a “vessel,” and therefore necessitate consideration as a “warship.” The discussion here will center on vessels capable of meeting technical and operational design requirements for seaworthiness and safe navigation without having a crew physically on board. The focus will not be on unmanned maritime systems or devices that are incapable of satisfying international and domestic obligations to be flagged as ships or for which it would be unnecessary to do so, because, for instance, their concepts of employment do not require it. Such government, non-commercial systems remain the sovereign property of the State to which they belong. However, their usage would not be entitled to the same rights as that of flagged ships, and they would continue to have to be exercised with due regard for others’ lawful uses of the seas.<sup>5</sup>

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5. United Nations Convention on the Law of the Sea art. 87, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS]. Examples of such unmanned maritime systems recently tested by the United States in international waters include the Sailer Explorer and the Mantas T-12. These systems are being evaluated for potential employment for the improvement of maritime domain awareness and intelligence, surveillance, and reconnaissance missions, but do not currently have the navigational capability to meet the requirements for flagging as United States ships. Systems of this size and type are also often launched from manned ships, whereas future concepts for large, unmanned surface and underwater vessels in the U.S. Navy are likely to be deployed directly from the pier. *See* RONALD O’ROURKE, CONG. RSCH. SERV., R45757, NAVY LARGE UNMANNED SURFACE AND UNDERSEA VEHICLES: BACKGROUND AND ISSUES FOR CONGRESS (2023).

## III. RIGHTS AND OBLIGATIONS OF WARSHIPS

Prior to an examination of whether and how an unmanned vessel may comply with the requirements for a warship, it is necessary to consider *why* a flag State may wish to accord its unmanned vessels this designation. As is familiar to most practitioners and academics in the field of naval warfare, flagging a vessel as a ship, and designating it a warship, entails certain privileges and obligations under international law. The analysis here is not intended to provide an exhaustive list of obligations and rights accorded to ships but will instead focus on those provisions most commonly referenced in discussions concerning how unmanned vessels may fit into the framework.

At a high level, the United Nations Convention on the Law of the Sea (UNCLOS) outlines the rights and obligations of ships, including warships, during peacetime. While a peacetime framework exists separate and apart from the *jus in bello* regime applicable during periods of international armed conflict, it is necessary to evaluate whether unmanned vessels can fit within this framework in order to consider the unique circumstances applicable during war.

Article 94 of UNCLOS outlines the obligations in broad terms, requiring States to maintain a register of ships flying its flag and assuming jurisdiction over them and their masters, officers, and crew.<sup>6</sup> Each flag State is further required to ensure safety at sea for ships flying its flag, including taking measures that would ensure “the construction, equipment and seaworthiness of ships; . . . the manning of ships, labour conditions and the training of crews . . . [and] the use of signals, the maintenance of communications and the prevention of collisions.”<sup>7</sup> UNCLOS further delineates these measures as requiring States to ensure each ship is surveyed and has on board the instruments needed for safe navigation; that each ship is “in the charge of a master and officers who possess appropriate qualifications,” and that the crew is “appropriate in qualification and numbers” for the ship; and that the master, officers, and crew are suitably trained to comply with international regulations concerning the prevention of collisions and other matters.<sup>8</sup>

These obligations, as outlined in UNCLOS and generally accepted as customary international law, are so broad in their nature and scope as to effectively render the compliance of unmanned vessels with Article 94 a matter of domestic policy and regulation more so than international law. None

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6. UNCLOS, *supra* note 5, art. 94(2).

7. *Id.* art. 94(3).

8. *Id.* art. 94(4).

of the flag State requirements outlined in UNCLOS, on their own, would make compliance overly burdensome or impossible for unmanned vessels; rather, ensuring seaworthiness, safety of navigation, and appropriate training for responsible personnel would conceivably fall within the assumed general practice for any vessel, including one without a crew or master physically onboard.<sup>9</sup> It would therefore be incumbent upon the flag State to establish specific regulations for its ships to ensure compliance with the obligations outlined in Article 94, though how a State chooses to do so—and whether new criteria are established to ensure compliance by physically unmanned vessels in particular—would remain the province of those flag States alone.

Another obligation applying to ships is that outlined in Article 98, concerning the duty to render assistance to any person at sea in distress and to proceed to their rescue with all possible speed.<sup>10</sup> The duty is considered reflective of the customary international law obligation of a ship's master to assist persons in distress at sea. Concerns are often raised about the capacity of an unmanned vessel to render such aid if there is no human physically on board to provide it.

However, the duty to render assistance is not unlimited. As stated in the text of Article 98 itself, the master is to render aid “in so far as he can do so without serious danger to the ship, the crew or the passengers.”<sup>11</sup> Further, Article 98 calls on the master to proceed “with all possible speed” to rescue such persons, but only “in so far as such action may be reasonably expected of him.”<sup>12</sup> These two limitations establish boundaries around the obligation to assist distressed persons at sea, which seem quite applicable in the case of unmanned vessels. The issue of whether or not unmanned vessels should be equipped with mechanisms to assist distressed persons has not been widely addressed or resolved at the international level. However, even if so equipped, the parameters established under Article 98 could be read to limit the duty to render assistance by unmanned vessels to the extent it is “reasonably expected” and could be accomplished without “serious danger to

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9. As one domestic example, U.S. Navy policy requires appropriate subject matter experts to determine the data and equipment required for each ship type. Additionally, program managers involved in the acquisition of new systems are responsible for ensuring these standards are incorporated during the contract process and subsequent construction. The U.S. Navy's acquisition system also entails robust testing and evaluation of ships to ensure they are seaworthy and fit for a purpose, as well as requiring periodic inspections and certification.

10. UNCLOS, *supra* note 5, art. 98(1).

11. *Id.*

12. *Id.* art. 98(1)(b).



the ship.” Ultimately, the value of the unmanned vessel may serve to be primarily in alerting coastal search and rescue authorities or nearby vessels better positioned to render assistance.

There is at least one other type of recognized ship—a submarine—that would likewise have difficulties complying with a very strict interpretation of Article 98. It is difficult to conceive of a scenario, especially during wartime, in which a submarine releases personnel or equipment to meaningfully assist distressed persons at sea without surfacing and without the potential of “danger to the ship.” The subsurface nature of these vessels and highly limited space on board render it impracticable, if not impossible, to provide the type of support likely envisioned by Article 98, yet—as will be discussed in additional detail—submarines can be flagged as warships under international law and have been recognized as enjoying this status for decades.<sup>13</sup>

A similar parallel could be drawn to the compliance of submarines with the Second Geneva Convention of 1949 obligation to collect wounded, sick, and shipwrecked members of the armed forces. Article 18 requires parties to a conflict, after a naval engagement, to “take all possible measures to search for and collect the shipwrecked, wounded and sick, to protect them against pillage and ill-treatment, to ensure their adequate care, and to search for the dead and prevent their being despoiled.”<sup>14</sup> It has been acknowledged by international legal experts that submarines may not have the capacity to assume this duty themselves, and further recognized that international law does not impose on them a requirement to surface or undertake an effort to collect persons in need.<sup>15</sup> The commander of a submarine may instead notify the appropriate authorities to carry out search and rescue following the engagement.<sup>16</sup> Along this line of thought, the International Committee of the Red

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13. See OFFICE OF THE GENERAL COUNSEL, U.S. DEPARTMENT OF DEFENSE, LAW OF WAR MANUAL § 13.7.2 (updated ed. July 2023) [hereinafter DOD LAW OF WAR MANUAL] (recognizing the fact that while the same rules apply to surface ships and submarines, their application to submarines may be different in this respect, and noting that “a submarine may have limited passenger carrying capabilities. Thus, it may be necessary to rely on other measures (*e.g.*, such as passing the location of possible survivors to a surface ship, aircraft, or shore facility capable of rendering assistance) to comply with the law of war obligation.”).

14. Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of the Armed Forces at Sea art. 18, Aug. 12, 1949, 6 U.S.T. 3217, 75 U.N.T.S. 85.

15. INTERNATIONAL COMMITTEE OF THE RED CROSS, COMMENTARY ON THE SECOND GENEVA CONVENTION: CONVENTION (II) FOR THE AMELIORATION OF THE CONDITION OF THE WOUNDED, SICK AND SHIPWRECKED MEMBERS OF ARMED FORCES AT SEA ¶ 1642 (2017); see also DOD LAW OF WAR MANUAL, *supra* note 13, § 13.7.2.

16. COMMENTARY ON THE SECOND GENEVA CONVENTION, *supra* note 15, ¶ 1643.

Cross (ICRC) 2017 Commentary on this principle notes that “unmanned naval systems” may encounter a similar challenge with strict compliance—and, by extension—could take a similar approach.<sup>17</sup>

In addition to the above obligations for flagged ships, all ships used exclusively on government, non-commercial service—including warships—are entitled to complete sovereign immunity while on the high seas. This principle is encapsulated in Articles 95 and 96 of UNCLOS, but reflects a longstanding tenet of international law. Sovereign immunity ensures that these ships are not subject to visitation and search by the warships of other States. UNCLOS further affirmed that nothing contained therein would impact the immunities of warships and other government ships operated for non-commercial purposes,<sup>18</sup> with the exception of non-compliance with coastal State obligations<sup>19</sup> and any damage caused in the territorial sea as a result.<sup>20</sup> This sovereign immunity principle was further sustained by the International Tribunal for the Law of the Sea (ITLOS) in the *ARA Libertad* case, in which the tribunal unanimously upheld the sovereign immunity of warships not only on the high seas and in territorial seas, but in another State’s internal waters as well.<sup>21</sup>

Personnel serving on board warships are also entitled to certain additional rights under international law, should they choose to assert them. These include the right of visit, pursuant to Article 110 of UNCLOS, of vessels not entitled to sovereign immunity, if they are suspected of engaging in piracy, slave trade, unauthorized broadcasting, or other violations during peacetime.<sup>22</sup> During a period of armed conflict, warships are also entitled to visit and search a non-sovereign immune vessel to ascertain its true character, the nature of its cargo, manner of employment, and other factors that may be determinative of its nationality and whether it is carrying contraband.<sup>23</sup> However, these are rights, and are considered to be permissive. As

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17. *Id.* ¶ 1642.

18. UNCLOS, *supra* note 5, art. 32.

19. *Id.* art. 30.

20. *Id.* art. 31.

21. “ARA Libertad” (Arg. v. Ghana), Case No. 20, Order of Dec. 15, 2012, ITLOS Rep. 2012, ¶ 95, at 332.

22. UNCLOS, *supra* note 5, art. 110(1)–(2).

23. SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA rr. 118, 120 (Louise Doswald-Beck ed., 1995). *See also* James Kraska et al., *Newport Manual on the Law of Naval Warfare*, § 9.9, 101 INTERNATIONAL LAW STUDIES 1, 172–73 (2023) [hereinafter *Newport Manual*].

such, flag States are in no way obligated to exercise them via any particular flagged vessel commissioned as a warship.

Another, and perhaps even more critical benefit accorded to warships, is the premise that only warships can exercise belligerent rights.<sup>24</sup> Activities that qualify as “belligerent” are themselves challenging to delineate precisely under international law. However, a number of missions may be predicted for unmanned vessels that are likely, under the appropriate circumstances, to be viewed as belligerent acts.<sup>25</sup> This renders the question of qualification of unmanned vessels particularly pertinent and suitable for closer examination. Pursuant to established law of armed conflict principles, States are obligated to ensure belligerent rights are exercised on their behalf by lawful combatants, and that combatants use offensive force only in compliance with the principles of distinction and proportionality, within the bounds of military honor, and without causing unnecessary suffering.

Finally, while outside of the UNCLOS framework, important mention should be made of the Convention on the International Regulations for Preventing Collisions at Sea (COLREGS), along with several other conventions within the purview of the International Maritime Organization (IMO). The latter include: the International Convention for the Safety of Life at Sea (SOLAS), the Standards of Training, Certification, and Watchkeeping (STCW), the International Convention for the Prevention of Pollution from Ships (MARPOL), and the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA). While these last four conventions regulate various aspects of navigation, they specifically exempt warships and, for the most part, other ships on government, non-commercial service. They are also peacetime treaties and would have little to no bearing for the purposes of our naval warfare discussion here.

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24. SAN REMO MANUAL, *supra* note 23, ¶ 13.21; *Newport Manual*, *supra* note 23, §§ 3.1–3.6. This article does not attempt to take a position on the notion that only warships can exercise belligerent rights (or whether or not, for instance, non-warships operating on government, non-commercial service—such as naval auxiliaries—should be entitled to certain rights as well). This is a separate and complex question that deserves significant exploration in its own right. This article will instead assume the belligerency privilege to be an accurate depiction of warship rights under international law and will build off of it accordingly. A determination on this question would not substantially alter the outcome of issues related to unmanned vessels for the purposes here outlined.

25. These could include engaging in a blockade, mine-laying, or serving as a platform for launching a weapon payload, among others. *See, e.g.*, Michael N. Schmitt & David S. Goddard, *International Law and the Military Use of Unmanned Maritime Systems*, 98 INTERNATIONAL REVIEW OF THE RED CROSS 567 (2016).

The COLREGS, however, are currently applicable to all vessels on the high seas, including warships. Drafted long before the emergence of autonomy in navigation, the COLREGS are intended to establish broadly applicable rules regulating maritime traffic and ensuring the safe conduct of vessels to avoid collisions. Certain rules established by the existing COLREGS would be challenging for any unmanned vessel to comply with; for instance, Rule 5 requires every vessel to “maintain a proper look-out by sight and hearing,”<sup>26</sup> which could be a problematic standard to meet if the requirement could not be accomplished remotely. However, international level discussions on matters related to COLREGS compliance by unmanned vessels at the IMO are ongoing, with expected completion around 2028. It is anticipated that these efforts will outline necessary amendments to existing IMO conventions to facilitate their application to unmanned vessels generally and will address the question of whether and how unmanned vessels may “functionally comply” with COLREGS requirements, if it is determined they should even be made a part of this framework.<sup>27</sup>

Having addressed the benefits that would accrue to flag States from treating certain unmanned vessels as warships, and having established that flag States can comply with the broad responsibilities outlined in UNCLOS if they choose to flag unmanned vessels, it is now necessary to consider whether an unmanned vessel can itself meet the criteria for a warship, should a flag State choose to designate one as such.

#### IV. WHAT QUALIFIES AS A WARSHIP?

The existing definition of a “warship” is considered to be well-established under international law and very familiar to practitioners and academics in this field:

[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

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26. Convention on the International Regulations for Preventing Collisions at Sea, r. 5, Oct. 20, 1972, 28 U.S.T. 3459, 1050 U.N.T.S. 16 [hereinafter COLREGS].

27. For more information on the IMO’s regulatory scoping exercises for MASS, and the development of a future MASS Code, see IMO, *Autonomous Shipping*, HOT TOPICS, <https://www.imo.org/en/MediaCentre/HotTopics/Pages/Autonomous-shipping.aspx> (last visited Aug. 3, 2023).

appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline.<sup>28</sup>

This present-day description of a warship is grounded in Article 29 of UNCLOS, although it is subject to various interpretations by States in their domestic applications of the term.<sup>29</sup> The definition itself will not be challenged here. However, it is important to digest it, element by element, within its historical context, to determine whether unmanned vessels qualify for the designation.

### A. Background

The need for a definition for “warship” largely arose from the context of the widespread practice of privateering in the seventeenth, eighteenth, and early nineteenth centuries. Privateers were civilians who effectively supplemented a State’s navy with private ships during times of war. They were granted “letters of marque”—akin to commissions—permitting them to attack and capture enemy ships. Instead of receiving payments or salaries from the State itself, privateers were permitted to keep a large percentage of any “prize” collected during a period of war. The remaining portion of their plunder would go to the State, allowing sovereigns to raise revenue to fight wars.

However, many privateers exceeded the bounds of their commissions both during and after armed conflict, which led to a convolution between privateering and acts of piracy. This created difficulties with distinction while on the high seas; differentiating between privateers and pirates, as well as others engaged in lawless activity, became a significant challenge. To address the problem, the approach taken by the international community, and specifically many European States, was to attempt to distinguish privateers and privateering vessels from ships that themselves belonged to sovereign States engaged in an armed conflict.

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28. UNCLOS, *supra* note 5, art. 29.

29. For instance, the most recent U.S. Navy policy describes the “Warship Classification” as applicable to “[a]ny commissioned ship built or armed for naval combat,” reflective of U.S. domestic law at 10 U.S.C. § 231. The Navy instruction further specifies that unmanned platforms, while still in testing phases, will be recommended for inclusion in the battle force count once “capable of contributing to combat operations”—appearing to anticipate that certain unmanned platforms may be reclassified as warships in the future. *See* U.S. Department of Navy, Secretary of the Navy Instruction 5030.8D, General Guidance for the Classification of Naval Vessels and Battle Force Ship Counting Procedures, encls. 1, 4 (2022).

This approach was reflected in the international community's efforts to identify and agree to a set of characteristics that would allow for such distinction. The effort originated in the period immediately following the Crimean War of 1853–1856, when a notable segment of the international community convened in Paris to negotiate the Declaration Respecting Maritime Law, known as the Paris Declaration. Signed April 16, 1856, and ratified by fifty-five States, a sizeable contingent at the time, the Paris Declaration provided the genesis for the current definition of a “warship.” Among other wartime practices, the Declaration prohibited privateering outright.<sup>30</sup>

However, it wasn't until 1907 that the international community convened in The Hague to identify and agree to a set of characteristics that would allow for a distinction between privateering vessels and State vessels for which it would be permissible to engage in belligerent acts during an armed conflict. The Hague Convention (VII) of 1907 Relating to the Conversion of Merchant Ships into War-Ships (Hague VII) was the first and most significant effort to establish explicit criteria characterizing a warship, as distinguishable from a privateering vessel or other ship not entitled to engage legally in belligerent acts.<sup>31</sup>

This objective and approach are reflected throughout Hague VII beginning with its preamble, which notes that its purpose is “to define the conditions subject to which this operation [of incorporating merchant ships in the fighting fleet in time of war] may be effected.”<sup>32</sup> The elements identified in the convention are all singularly focused on the purpose of eradicating the practice of privateering.<sup>33</sup>

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30. Declaration Respecting Maritime Law art. 1, Apr. 16, 1856, 115 Consol. T.S. 1, 15 MARTENS NOUVEAU RECUEIL (ser. 1) 791, *reprinted in* 1 AMERICAN JOURNAL OF INTERNATIONAL LAW SUPPLEMENT 89–90 (1907) [hereinafter Paris Declaration].

31. Convention No. VII Relating to the Conversion of Merchant Ships into War-ships, Oct. 18, 1907, 205 Consol. T.S. 319 [hereinafter Hague VII]. It should be noted that the issue of privateers was not a fully settled one for the United States for many years, given that it did not sign the Paris Declaration or Hague VII due to concerns about the assertion that belligerent acts may only be waged from warships.

32. *Id.* pmbl.

33. The defining characteristics in Hague VII were identified as:

Article 1. A merchant ship converted into a war-ship cannot have the rights and duties accruing to such vessels unless it is *placed under the direct authority, immediate control, and responsibility of the Power whose flag it flies.*

Article 2. Merchant ships converted into war-ships must *bear the external marks which distinguish the war-ships of their nationality.*

Article 3. The *commander must be in the service of the State and duly commissioned by the competent authorities.* His name must figure on the list of the officers of the fighting fleet.

The Hague VII definition, with a focus on the application to merchant ships converting to warships, formed the basis for the International Law Commission's (ILC) recommended definition of a warship. In its 1956 Annual Report, the ILC recommended the definition of a "warship" as:

a ship belonging to the naval forces of a State and bearing the external marks distinguishing warships of its nationality, under the command of an officer duly commissioned by the government and whose name appears in the Navy List, and manned by a crew who are under regular naval discipline.<sup>34</sup>

The recommended text was ultimately included, verbatim, in the United Nations Convention on the High Seas of 1958 (High Seas Convention) as Article 8(2),<sup>35</sup> encapsulating Hague VII's elements into a single, widely applicable definition that has lasted largely intact to this day.

Following the High Seas Convention, States began seeking a more comprehensive legal framework for access to and uses of the maritime domain, focused on further encouraging freedoms of navigation, fishing, and military activities,<sup>36</sup> which ultimately matured into negotiations for UNCLOS. However, the question of warships was again not extensively discussed during the consultation sessions for UNCLOS. Indeed, the most notable outcome pertaining to the definition of warships may have been the fact that there was nothing particularly novel about it in the convention at all.<sup>37</sup> The focus of the plenipotentiaries appeared to be updating the definition to account for the fact that warships may belong to any service of the armed forces of a State, rather than just the naval service. The components of the definition of a "warship" delineated in the High Seas Convention have therefore remained intact and effectively the same for our purposes to this day.

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Article 4. *The crew must be subject to military discipline.*

*Id.* arts. 1–4 (emphasis added).

34. *Report of the International Law Commission to the General Assembly*, 11 U.N. GAOR Supp. No. 9, U.N. Doc. A/3159 (1956), reprinted in [1956] 2 YEARBOOK OF THE INTERNATIONAL LAW COMMISSION 280, U.N. DOC. A/CN.4/SER.A/1956/Add.1 [hereinafter *Report of ILC*].

35. 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.

36. Bernard H. Oxman, *The Regime of Warships Under the United Nations Convention on the Law of the Sea*, 24 VIRGINIA JOURNAL OF INTERNATIONAL LAW 809, 810 (1984).

37. *Id.* at 861.

## B. “a ship . . .”

The first necessary component of a warship is, unavoidably, that of “a ship.” Although seemingly straightforward, there is no universally accepted criteria for what qualifies as a ship under international law. While domestic statutes may include definitions of the term for the purposes of maritime law jurisdiction or admiralty suits, international law has not provided a resolution to variations among national approaches to this terminology for naval warfare purposes. There is, therefore, no collective agreement on specific factors that need to be met for a craft to qualify for this designation.

While UNCLOS itself includes a meaning ascribed to “warship,” it did not include a description of the element of a “ship.” Instead, the approach in UNCLOS appears to be one based on flag State requirements and obligations. Pursuant to Article 91 of UNCLOS, “[e]very State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag.”<sup>38</sup> The language thus defers to each flag State to determine which craft are eligible and should be accorded the right to fly its flag—meaning, effectively, which craft qualify as ships and can meet the obligations involved therein. International law therefore defers to individual States to determine whether a craft may be flagged as a ship, so long as it meets the Article 94 requirement to “conform to generally accepted international regulations, procedures and practices.”<sup>39</sup> The latter must be done to ensure safety at sea, survey by a qualified surveyor, and the “appropriate qualifications” of the master and officers.<sup>40</sup> For the United States, these requirements are outlined in Federal statutes, as well as in U.S. Navy policy.<sup>41</sup>

This point was reinforced by ITLOS in *MV Saiga*. In its judgment, ITLOS confirmed it was up to each flag State to determine the requirements for any ship flying its flag, adding that Article 91 “codifies a well-established rule of general international law,”<sup>42</sup> and further, that “[t]hese matters are regulated by a State in its domestic law.”<sup>43</sup>

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38. UNCLOS, *supra* note 5, art. 91(1).

39. *Id.* art. 94(5).

40. *Id.* art. 94(4)(a)–(c).

41. For a U.S.-based example, see 10 U.S.C. § 8674 regarding periodic inspections of naval vessels for the purposes of establishing seaworthiness. Further requirements are reflected in U.S. Navy regulations and policy documents.

42. *M/V Saiga* (No. 2) (St. Vincent v. Guinea), Judgment of July 1, 1999, 2 ITLOS Rep. ¶ 63.

43. *Id.*



As such, it seems virtually any craft, manned or unmanned, can be deemed a ship for the purposes of UNCLOS, if a flag State so determines. It would, however, still be the responsibility of the flag State to ensure its ships meet requirements for ensuring safety at sea under international law. More specifically, Article 94 of UNCLOS provides that the flag State still has the obligation to “effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag,” and the State must take the measures necessary “to ensure safety at sea,” including ensuring the seaworthiness of ships and the prevention of collisions.<sup>44</sup>

It should be noted that the term “ship” is often equated with the term “vessel,” for which there is a generally accepted definition under the law of the sea. The COLREGS define a vessel as “every description of water craft, including non-displacement craft, WIG craft and seaplanes, used or capable of being used as a means of transportation on water.”<sup>45</sup> The vessel definition was drafted in an expansive manner to cover all types of craft, regardless of size, shape, speed, appearance, or a number of other factors.<sup>46</sup>

For international law purposes, it appears that a ship can amount to virtually any craft a flag State determines qualifies for the designation, so long as it can exercise due regard and comply with flag State regulations.<sup>47</sup> There is no mention in international law of a requirement for personnel to serve on board or even one for the existence of a crew.

As mentioned, since there is no definition in international law for a ship that has been widely adopted for universal law of the sea or law of naval warfare purposes, and there is no indication a ship differs in any meaningful way from a “vessel,” this article will assume that these terms are effectively synonymous. To argue otherwise would be to create a dichotomy for which there is no recognized legal or factual basis, and which does not appear to

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44. UNCLOS, *supra* note 5, art. 94(1).

45. COLREGS, *supra* note 26, r. 3(a).

46. The definition is, in fact, so broad that it has even been used to apply to a bathtub, which was outfitted to comply with the United Kingdom’s requirements for flagging, and to which other vessels were required to give way and exercise due regard while it traversed the English Channel. *See* Tim Fitzhigham, *I Rowed the English Channel in a Bathtub*, HUFFPOST UK NEWS (updated Sept. 13, 2017), [https://www.huffingtonpost.co.uk/tim-fitzhigham/english-channel-bathtub\\_b\\_17908212.html](https://www.huffingtonpost.co.uk/tim-fitzhigham/english-channel-bathtub_b_17908212.html).

47. While there are additional responsibilities that accrue to flag States for the ships over the circumstances under which they can exercise jurisdiction, as previously mentioned, ongoing efforts and negotiations at the IMO are aimed at addressing gaps in the existing regulatory scheme to apply to MASS.

exist in other working languages of the international organizations exercising jurisdiction in this area.<sup>48</sup>

C. “*belonging to the armed forces of a State . . .*”

The element of “belonging to the armed forces of a State” should be straightforward for an unmanned vessel to satisfy, so it will not be discussed at length here. An unmanned vessel would need to constitute a part of the armed forces of a State—and not, for instance, a civilian branch of government or a private entity, such as a corporation—in order to satisfy this requirement. In the United States, the statutory definition of “armed forces” includes the Army, Navy, Marine Corps, Air Force, Space Force, and Coast Guard.<sup>49</sup>

D. “*bearing the external marks distinguishing such ships of its nationality . . .*”

The question of external indicators of nationality is unlikely to become an issue in and of itself, as marking an unmanned vessel should not entail any burden above and beyond the marking of any physically manned warship. However, the question of compliance with this requirement should again be read in light of its historical context and purpose—to ensure distinction at sea and avoid unlawful deception or perfidy under the law of armed conflict.

As previously mentioned, the element finds its source in Hague VII. Article 2 of the treaty plainly states: “Merchant ships converted into war-ships must bear the external marks which distinguish the war-ships of their nationality.”<sup>50</sup> The key term in this requirement is “distinguish”—at the point of

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48. For instance, French language texts of treaties like UNCLOS and the COLREGS use one word to describe both a ship and a vessel—*navire*. A warship, under UNCLOS, is termed *navire de guerre* or “ship of war.” Older French documents sometimes refer to *vaisseau*, but the term seemed to have been abandoned in subsequent legal documents. Most other working languages of the United Nations appear to likewise rely on one term. The use of both “ship” and “vessel” in the English language version of UNCLOS appears to be a vestige of the use of “vessel” in various environmental treaties and the use of “ship” in the United Nations Convention on the High Seas of 1958, the articles of which were considered as a basis during UNCLOS negotiations. See Oxman, *supra* note 36, at 813.

49. 10 U.S.C. § 101(a)(4).

50. Hague VII, *supra* note 31, art. 2.

exercising the right of belligerency, the warship must be identified by its nationality and character as a warship.<sup>51</sup> The principle is intended to allow enemy forces to differentiate between military targets and civilian objects, as well as between neutral and belligerent forces.

As outlined in Rule 110 of the *San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, “[w]arships and auxiliary vessels . . . are prohibited from launching an attack whilst flying a false flag and at all times from actively simulating the status of”<sup>52</sup> hospital ships and medical transports, civilian passenger vessels with civilians on board, vessels protected by the United Nations flag, and other vessels entitled to protection.

Beyond this principle, there are no shape or appearance specifications for what constitutes a warship, or even what the marks themselves should look like. In order to be considered a warship during a period of armed conflict, the element, therefore, appears to require an unmanned vessel to be marked in a way that identifies its character and nationality at the moment it may be engaged in a belligerent act. If the unmanned vessel is not disguised at any stage of its operations, there is likely little dispute that the element is satisfied. If, however, the unmanned warship is at any time flying a false flag, the standard would require it to have the capability to show its “true colors” if it were used as a platform for the discharge of a weapon payload at the moment it begins the engagement. As previously outlined, a State would also be prohibited from disguising an unmanned warship as a ship falling into one of the protected categories, such as a hospital ship. So long as an unmanned warship is marked in accordance with these rules, the element of external marks would appear to be satisfied.

E. *“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 . . .”*

At first glance, the element that a warship be “under the command of an officer” would seem to require that there be a duly commissioned officer on board the ship in question. The natural inclination may be to suggest that a vessel without a commissioned officer exercising authority on board the ship

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51. SAN REMO MANUAL, *supra* note 23, r. 110. *See, e.g.*, United States Navy Regulations art. 1259(2) (1990). *See also Newport Manual, supra* note 23, § 3.2.1.

52. SAN REMO MANUAL, *supra* note 23, r. 110. *See also Newport Manual, supra* note 23, §§ 1.3.3, 10.4.

cannot be under an officer's command. This notion, however, isn't universally supported by State practice and would be impracticable in numerous types of current and historic naval and amphibious operations.

As with the criteria for what constitutes a "ship," there is no foundational international law definition for what it means to be under one's "command." Military manuals and glossaries of various States may provide some guidance, but even then the meanings ascribed to the concept tend to be circular and rarely informative as to practical applications of the term in a naval context. For instance, U.S. Joint Publication 1-02, which sets forth standard military terms applicable to the Armed Forces of the United States, defines "command" as "[t]he authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment," or "[a] unit or units, an organization, or an area under the command of one individual."<sup>53</sup> It would seem, therefore, that any vessel constituting a part of a unit, organization, or area under the authority of a commander would be under their command,<sup>54</sup> whether or not the commander is there to exercise that authority in person.

While there is no explanation of what it means for a vessel to be under one's command, the COLREGS do provide guidance for what constitutes a vessel *not* under command. According to Rule 3(f), a "vessel not under command" is defined as "a vessel which through some exceptional circumstance is unable to manoeuvre as required by [the COLREGS] and is therefore unable to keep out of the way of another vessel."<sup>54</sup> The essential standard that needs to be met, therefore, relates to the ability of the vessel to be navigated in compliance with COLREGS requirements, and not to the existence of any humans exercising the responsibilities of a master or officer in command on board.

There is scant evidence in international law that the requirement that a vessel or a ship be "under the command of an officer" means the officer must be on board that vessel.<sup>55</sup> In fact, there are instances of State practice that may seem to indicate just the opposite is true—commissioned officers

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53. *Command*, Joint Chiefs of Staff, Joint Publication 1-02, DOD Dictionary of Military and Associated Terms 43 (Mar. 2017), <https://apps.dtic.mil/sti/pdfs/AD1029823.pdf>.

54. COLREGS, *supra* note 26, r. 3(f).

55. *But see, e.g.*, U.S. NAVY, U.S. MARINE CORPS & U.S. COAST GUARD, NWP 1-14M/MCWP 5-12/COMDTPUB P5800.7A, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS ¶ 2.3.1 (2007); U.S. NAVY, U.S. MARINE CORPS & U.S. COAST GUARD, NWP 1-14M/MCWP 5-12/COMDTPUB P5800.7A, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS ¶ 2.1.3 (1995).

can exercise command and control of vessels remotely, such as via radio communications, with an enlisted crew that is physically on board. This is not just a recent phenomenon. As one example, during the Korean War, the commanding officer of a U.S. destroyer manned a whaleboat with officers and enlisted sailors who deployed several miles from the ship to seize fishing boats and their crews—an effective tactic for gathering intelligence about the enemy’s plans. The boat crews continued to operate within range of the destroyer’s radios and radar, allowing the commanding officer to continue to command the vessel and its crew.<sup>56</sup> However, the commanding officer remained on board the destroyer during the operation, exercising his authority remotely.

A complete reading consistent with the intent of the element would also require consideration of the phrase as a whole—meaning, the criterion does not end with a ship being under one’s command, but rather under the command of an officer duly commissioned by the government of that State and whose name appears in the appropriate service list or its equivalent. This is an essential component of this element—the requirement that the vessel be under the command of a duly commissioned officer differentiates a warship from, for instance, an auxiliary vessel or a merchant vessel.

As previously mentioned, the requirement for an officer in command has its roots in the historical practice of privateering. Since privateers were civilians, the condition that a vessel be under the command of an officer commissioned by a State effectively rendered the civilian privateer obsolete, and a vessel under the command of a privateer ineligible for warship status and the right of belligerency it entailed. The requirement for a warship to be under an officer’s command was closely related to the requirements imposed on its crew, which—in the case of a privateering vessel—was also made up of civilians.

F. *“manned by a crew which is under regular armed forces discipline.”*

The most critical of the elements to evaluate and the one most often cited in reference to the potential for unmanned warships—and, perhaps, the most often misunderstood—is the requirement for a crew. Many analysts simply view the warship definition as requiring that a warship be manned by a crew

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56. EDWARD J. MAROLDA, *READY SEAPOWER: A HISTORY OF THE U.S. SEVENTH FLEET* 31 (2012), <https://www.history.navy.mil/content/dam/nhhc/research/publications/Publication-PDF/ReadySeapower.pdf>.

and end the investigation at this juncture. This interpretation would, however, amount to only a partial reading of the element, without consideration for the full requirement and an analysis consistent with its context and purpose.

It is therefore important to note at the outset that the requirement here is not for a ship that is manned by a crew; rather, as with the previous element, a complete reading of the element demonstrates that the requirement is for a ship that is “manned by a crew *which is under regular armed forces discipline.*” This is a critical distinction, as the intent behind the requirement is that the crew be part of the armed forces—and not that the ship have a crew physically on board.

The justification for considering the element as a whole, beyond a plain reading of the qualifying elements for a warship and not the crew, again lies in the context of the requirement and its encapsulation in Hague VII. Specifically, Article 4 of the treaty describes the crewing requirement as follows: “The crew must be subject to military discipline.”<sup>57</sup> It makes no other mention of a crew or any manning requirement. The element was undoubtedly aimed at solidifying an end to the practice of privateering, given that privateering ships were crewed by civilians. The assumption may have been, at the time, that a vessel would necessarily have a crew physically on board, but such an inference does not itself amount to a requirement.

As mentioned, the ILC further distilled the elements outlined in Hague VII into the definition incorporated into the 1958 High Seas Treaty, and subsequently, in nearly identical form, into Article 29 of UNCLOS. In doing so, the ILC certainly gave careful consideration to the qualifying characteristics for a warship—yet its commentary on the proposed text, as draft Article 32, merely states that “[t]he definition of the term ‘warship’ has been based on Articles 3 and 4 of The Hague Convention of 18 October 1907 relating to the conversion of merchant ships into warships.”<sup>58</sup> The ILC effectively reduced the central elements of Hague VII—that the commander be duly commissioned and the crew be subject to military discipline—into a single definition recommended for the establishment of a warship regime on the high seas.

It also merits consideration whether the question of the qualifying elements for a warship was raised in subsequent years during the conference

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57. Hague VII, *supra* note 31, art. 4.

58. *Report of ILC*, *supra* note 34.

sessions ahead of UNCLOS. However, there is no evidence in the negotiating history of UNCLOS that the question of what constitutes a crew for the purpose of warship status was discussed.<sup>59</sup> As such, we are left with the treaty language itself, as well as the limited explanation provided ahead of the 1958 High Seas Treaty by the ILC. None of this background, as previously outlined, would seem to indicate that a vessel must have a crew physically on board to qualify for the warship designation.

It is perhaps even more fundamental to address the requirement for a “crew” itself. In order to do so, we should consider what a crew is, and what role it fulfills, to determine whether a physically unmanned vessel is, in fact, crewed.

Many of the functions performed by a typical crew physically on board a warship become obsolete and unnecessary when considering a ship that is physically unmanned. As an example, an aircraft carrier in the U.S. Navy, one of the largest types of ships in the world, is organized to include several departments that exist to support personnel onboard and would be rendered largely without purpose for a physically unmanned vessel, such as medical and dental staff, supply corps, and training officers. Others, such as the administrative department, largely handle paperwork functions that should be achievable from shore without significant impediment. Still others, while managing tasks essential to the operation of the vessel itself, are able to accomplish their tasks from remote operating centers due to advancements in technology and can do so without jeopardizing the safety of the crew or other vessels, or the security of the unmanned vessel itself. This includes functions related to navigation, maintenance, and deck responsibilities.<sup>60</sup>

This largely leaves the department responsible for operations on a ship, including intelligence functions, support for air and undersea assets, electronic systems maintenance, and those specific to operating certain weapon systems and other means of warfare. Operations departments tend to be at the heart of a warship’s missions, being responsible for the collection and dissemination of combat information necessary to accomplish the ship’s

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59. *See* Office of the Judge Advocate General of the Navy, 2 Commentary on UNCLOS III Negotiations, ¶ 3, at 229–30 (undated notes from UNCLOS negotiations) (on file with the Office of the Judge Advocate General, National Security Law Division).

60. It should be noted that navigation responsibilities would include ensuring due regard for others’ lawful uses of the seas. The extent to which unmanned vessels can exercise due regard is being closely examined through international negotiations at the IMO, and amendments to existing treaties to account for the compliance of unmanned vessels are expected to be forthcoming. As such, it would be unnecessary and potentially counterproductive to delve deeply into the issue here.

mission. Here too, however, many of the functions entailed can either be automated or replicated from the shoreline, with some modifications.

Since most functions of a warship's crew are either already rendered unnecessary or achievable from shore on an unmanned vessel or soon will be, there does not appear to be any practical reason for requiring a crew to be physically on board a warship to meet the warship standard. As previously discussed, there also does not appear to be anything in the historical underpinnings of the element of "manned by a crew which is under regular armed forces discipline" that is indicative of an intent that the crew be physically on board or would prevent a physically unmanned vessel with remote personnel from qualifying as a warship.

#### V. ORDINARY MEANING AND CONTEXTUAL READING

Whatever is said about unlimited warfare by submarines is also true of unlimited warfare by surface craft, provided the combatant wishes to violate the rules of war.

Report on submarines adopted by the Advisory Committee of the American Delegation to the Conference on the Limitation of Armament, 1921<sup>61</sup>

Opponents of classifying unmanned vessels as warships under international law may view the above interpretation of the warship definition as one that is too expansive or out of line with a plain reading of the treaty language. To address this concern, treaty interpretation rules based in the Vienna Convention on the Law of Treaties (Vienna Convention) will be referenced here, as the agreement is regularly viewed as providing the predominant approach to interpreting treaty language.

Article 31 of the Vienna Convention states: "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."<sup>62</sup> There are, of course, several ways this language could be construed when applying the international law definition of a warship to an unmanned

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61. *Conference on the Limitation of Armament, Minutes of Committee on Limitation of Armament 5th Meeting, Dec. 22, 1921, reprinted in 21 INTERNATIONAL LAW STUDIES 47, 58 (1921)* (quoting report on submarines adopted by the Advisory Committee of the American delegation).

62. Vienna Convention on the Law of Treaties art. 31(1), May 23, 1969, 1155 U.N.T.S. 331.



vessel. One possible approach, as is often taken by opponents of the proposed reading of the warship definition, is to interpret the definition “in accordance with the ordinary meaning to the terms of the treaty”<sup>63</sup> and end the analysis there. This reading relies on “ordinary meaning” as the operative expression that would necessitate, for instance, an interpretation of the definition to mean that the crewing element requires the warship to be physically manned. However, such a reading would reduce the Vienna Convention’s provision itself to an abbreviated element that does not, and should not, stand on its own in Article 31.

Instead, the Article 31 phrase should itself be read as a whole—meaning that the terms of the treaty should not only be read in accordance with their “ordinary meaning,” but also “in their context” and “in the light of [the treaty’s] object and purpose.” As such, it is important to reference the historical context for the warship definition itself—namely, the prevalence of privateering on the high seas during the seventeenth, eighteenth, and nineteenth centuries, as previously outlined, and subsequent efforts to prevent the continuation of the practice. The context within which the warship requirements are being considered sets them apart from private ships engaged in acts of piracy or claimed privateering. The criteria established by the warship definition in international law rendered these types of acts effectively impossible.

We must also consider the *object* and the *purpose* of the treaty originally generating the elements of the warship definition, particularly with respect to those elements that are seemingly the most challenging for unmanned vessels to comply with—namely, the requirements that the ship be under a duly commissioned officer’s command and manned by a crew under regular armed forces discipline. Here, again, however, the historical context of the Paris Declaration, and, subsequently, Hague VII, appears to point to the intention of the warship criteria being to establish specific requirements that would prevent continued privateering, and to set conditions for entitlement to sovereign immunity and the conduct of belligerent actions that only a warship meeting that criteria could achieve.

Consequently, when read in historical *context*, and in light of its *object* and *purpose*, the definition of a warship appears to be singularly focused on the prevention and prohibition of privateering, rather than a requirement that a warship have a duly commissioned officer or a crew under armed forces dis-

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63. *Id.*

cipline physically on board the vessel itself. A reading of the required elements that does not consider them in a manner consistent with the Vienna Convention's guidance would not provide a comprehensive and thorough analysis of the application of the warship definition to emerging technologies involving autonomy in the maritime domain.

Given the foregoing, we should be careful not to read-in one or more requirements for a warship that do not exist under international law. It is tempting to assume that the condition that a warship be "under the command of an officer" or "manned by a crew" implies a requirement that such personnel be physically onboard the ship. However, such a reading would almost certainly be based on what we have become accustomed to understanding those terms to mean and not a precise reading of the requirements presented, particularly in light of their context, object, and purpose.

## VI. THE QUESTION OF FORESEEABILITY

[E]very method of warfare may or may not be employed in conformity with the laws of war and . . . the inhuman and barbarous use made of the submarine by a belligerent in the late war is a reason for condemning that belligerent but not for condemning the submarine.

Albert Sarraut, Minister for the Colonies  
of France, 1921<sup>64</sup>

An often-proposed response to advocates of including unmanned vessels within the existing legal framework for naval warfare is that the law did not anticipate the development and widespread use of unmanned vessels, and therefore the drafters of the warship provisions forming the basis of applicable treaty law did not consider them. Based on this line of thought, a new framework that specifically applies to unmanned vessels must be drafted. Proponents of this perspective contend that the technological advancements involved in creating vessels capable of independent navigation were not predicted during the negotiation and signing of the underlying international treaties outlining the requirements for warships, and there is insufficient State practice to have established, at minimum, a new norm.

There is virtually no disagreement that unmanned vessels were not anticipated at the time relevant provisions of applicable international treaties

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64. *Conference on the Limitation of Armament*, *supra* note 61, at 54–55 (quoting Albert Sarraut, Minister for the Colonies of France).

were drafted, and there is no evidence that ships without crews physically onboard were ever contemplated during the negotiation of these foundational agreements. As outlined in the historical discussion surrounding the requirement that a warship be “manned by a crew under regular armed forces discipline,” the question of a ship’s manning—separate and apart from concerns about privateering—was never itself brought up during negotiations of international conventions that have served as the basis for our understanding of this definition. It is likely the drafters did not foresee the possibility that a ship could ever be physically unmanned, and yet still capable of independent navigation or compliance with other international law principles.

However, it seems equally likely that the need for a warship definition in international conventions was originally never intended to extend beyond addressing the challenge of privateering and ensuring private vessels engaged in the practice are not accorded the same rights as warships under international law. As such, if foreseeability serves as the basis alone, the need for a definition of “warship” would itself seem to come into question when considering today’s naval warfare activities and the eradicated practice of privateering. Moreover, the mere fact that unmanned vessels may not have been foreseen at the time of the drafting of the definition of a warship does not preclude the application of the existing legal framework to this novel development in the maritime industry. Indeed, strict readings of this type would have necessitated new rules for a variety of technological advancements in naval warfare or challenges of interpretation where no directly applicable precedent exists, and this is not the first such instance challenging our traditional understanding of the elements of the warship definition.

#### *A. The Subsurface Standard*

As previously mentioned, the application of the warship term to a newer technology was considered with the development and broader use of subsurface vessels in the military context during the First World War.<sup>65</sup> Follow-

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65. Prior to World War I, there were instances of subsurface vessels involved in naval warfare, including during the American Civil War, and even—in a limited capacity—during the American Revolutionary War. The first instance of a subsurface vessel used in combat was that of the Continental Army’s *Turtle* in 1776. The *Turtle*, a one-man, hand-propelled subsurface vessel, was not successful in its attempt to sink a British warship during the war,

ing the war and fearing another international conflict, the five principal Allied powers met at the Conference on Limitation of Armament, also referred to as the Washington Conference, in an effort to limit naval armament and reduce growing tensions in East Asia with an increasingly militarized Japan. One of the principal fears heading into the conference was the potential for further development of submarine warfare and the destruction of commercial vessels by submarines during the First World War. The British delegation was especially concerned with the possibility that belligerent submarines could become more prevalent, particularly as they had been employed to target commercial shipping. The delegation therefore entered the conference with the goal of eliminating them altogether.

While the product of the conference, the Washington Naval Treaty of 1922, did not ultimately take effect, nor did it attempt to abolish the submarine, the application of the laws of naval warfare to a new technology during its negotiation stages, as well as those of the London Naval Conference that followed in 1930, are informative for our purposes. Whether submarines should be accorded the same rights and privileges as surface ships was undoubtedly an uncomfortable question at the time the issue was being considered. This is evidenced by the extensive consideration accorded to it pursuant to the premise that the proposed treaty limiting the use of submarines and noxious gases in warfare would not be ratified.<sup>66</sup> State practice in the use of submarines, particularly by Germany during the First World War, seemed to outpace the law of naval warfare at the time. Indeed, while not all parties at the Washington Conference agreed that submarines should be banned, they did appear to consent to the notion that subsurface vessels should be held to the same rules as surface ships, particularly those prohibiting attacks

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and likely would not itself have qualified as a warship under the current definition in UNCLOS Article 29. Nevertheless, the work of David Bushnell, to whom the *Turtle* is credited, is considered pioneering and innovative from a submarine warfare perspective and laid the foundation for certain aspects of submarine technology employed to this day. Later, the *CSS Hunley*, used by the Confederate States of America during the Civil War, was the first and only instance of a subsurface vessel successfully sinking an enemy ship in the nineteenth century. While the first military use of subsurface vessels may therefore have taken place several decades earlier, it wasn't until World War I that military uses of submarines became more prevalent and effective, particularly with the rise of the German U-boat.

66. See generally *International Law Situations with Solutions and Notes, Situation II—Submarines*, 26 INTERNATIONAL LAW STUDIES 39 (1926).

on merchant vessels unless they have refused to submit to visit and search. This was viewed as “universally accepted as part of the law of nations.”<sup>67</sup>

The U.S. Naval War College considered the application of the “warship” designation to submarines in 1926, following discussions of the Washington Treaty. The War College found that a “belligerent submarine lawfully commissioned as a vessel of war may exercise the rights of a vessel of war but its nature gives it no special rights or privileges.”<sup>68</sup> This was the case even though subsurface warfare was not anticipated at the time of the drafting of the original criteria contained in the Paris Declaration of 1856 and the Hague Conventions of 1907. Furthermore, the War College determined that this legal principle, to which submarines should be held, would “presumably be binding, even without a treaty, because it is declared to be ‘an established part of international law.’”<sup>69</sup>

The tension between viewpoints supporting the further development of military submarines within the bounds of naval warfare, and proposals to abolish them entirely, appears to closely parallel the broader debate over the use of autonomy in warfare today. Notably, the American delegation’s report following the Washington Conference concluded:

The submarine as a man-of-war has a very vital part to play. It has come to stay. It may strike without warning against combatant vessels, as surface ships may do also, but it must be required to observe the prescribed rules of surface craft when opposing merchantmen as at other times.<sup>70</sup>

These statements may well be written about unmanned vessels today. Unmanned technology has a vital part to play, and it has come to stay. Its use must comply with applicable international law, but it is permissible in its own right, and—much as world powers acclimated to the existence of submarines and addressed their use within the framework of international law in the mid-twentieth century—we will need to become accustomed to applying legal principles, as they exist in their current form, to these latest technological developments.

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67. *Id.* at 41 (quoting the proposed Article V of the Treaty in Relation to the Use of Submarines and Noxious Gases in Warfare of 1922).

68. *Id.* at 64.

69. *Id.* at 39.

70. *Id.* at 57 (quoting report on submarines adopted by the Advisory Committee of the American Delegation).

### B. *Charting the Course*

The risk of rejecting an approach that recognizes unmanned vessels can fit the existing meaning of warships lies in the likelihood that armed, unmanned vessels will remain outside any framework at all—including any potential accountability mechanism for flag States. This is not a remote possibility that can be avoided with the establishment of separate rules accounting only for autonomy in navigation. State practice is already evolving in this area and is likely to continue at an increasingly rapid pace.<sup>71</sup> It would be imprudent to assume that the very States investing heavily in unmanned maritime capabilities will agree to new rules or a new legal framework that has the potential to slow or limit those technological advancements.

Instead, we may need to become more satisfied with the application of current law to developing technologies and consider how they may be used in compliance with those legal principles. It is a much more straightforward task to require new systems to fit established paradigms than it is to attempt to enforce compliance with a novel framework of legal principles that are unlikely to receive broad consensus in the international community.

## VII. CONCLUSION

Only the total abolition of war fleets might put a stop to the continual progress of technical evolution.

Georges Leygues,  
Minister of Marine of France,  
1930<sup>72</sup>

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71. See, e.g., David Axe, *Ukraine's Drone Boats Are Winning the Black Sea Naval War*, FORBES (Nov. 20, 2022), <https://www.forbes.com/sites/davidaxe/2022/11/20/the-ukrainian-navy-has-no-big-warships-its-winning-the-naval-war-anyway-with-drones/?sh=70ff7a6e4fc5>; Prakash Panneerselvam, *Unmanned Systems in China's Maritime "Gray Zone Operations"*, THE DIPLOMAT (Jan. 23, 2023), <https://thediplomat.com/2023/01/unmanned-systems-in-chinas-maritime-gray-zone-operations/>; Thomas Nilsen, *This is Russia's New Unique Underwater Drone for Arctic Waters*, THE BARENTS OBSERVER (July 12, 2016), <https://thebarntobserver.com/ru/node/958>.

72. *Situation I: London Navy Treaty, Article 22, and Submarines*, 30 INTERNATIONAL LAW STUDIES 1, 3 (1931) (quoting Georges Leygues, Minister of Marine, speaking for France at the London Naval Conference in 1930).

It remains inevitable, much as it did in the 1920s and 1930s, that States will continue to move forward with developing increasingly advanced technologies to secure strategic and military advantages over their adversaries. This has been the case with the development of various means and methods of warfare and, as described, subsurface systems capable of engaging in belligerent acts. While the growth of autonomous functions applicable to various circumstances in the contemporary battlespace is notable, there is nothing so exceptional about ongoing developments in the current era of competition involving autonomy that would necessitate large-scale changes to existing rules of the law of naval warfare.

Instead, as described, we must consider the application of longstanding legal principles to the *use* of the ever-growing number of technological advancements. Limitations on the concept of autonomy are not a solution in and of themselves—they instead represent efforts to curtail the progression of a means of warfare by drawing arbitrary lines that attempt to separate lawful technologies from ostensibly unlawful ones. This perspective is based largely on the notion that the advancements were not foreseen at the time of the development of the legal framework applicable to them, and therefore States should not be allowed to continue with their development. Unfortunately, this approach—in addition to its improbability in an era of strategic competition—fails to appropriately place the burden on States to employ new means and methods of warfare in compliance with international law, rather than the mistaken premise that this rapidly advancing new technology can be outlawed outright.

Attempts to ban subsurface vessels or limit their size and armaments in the face of war a century ago demonstrate just how implausible decelerations or prohibitions can be following the adoption of a new technology in naval armament. The concerns that led to discussions addressing subsurface vessels ahead of the Washington Conference of 1921–1922 and the London Naval Conference in 1930 provide ample evidence that the uneasiness of many States was not with the existence of the submarine itself; it was, instead, in large part, with the use of submarines against neutral commerce during the First World War, which was viewed as a barbaric tactic by much of the international community. The subsequent development of international law over a span of several decades following the Second World War demonstrates that the prohibition did not suitably belong to the concept of a subsurface vessel—it belonged to methods of its employment that were determined to violate the law of naval warfare.

This article has demonstrated that unmanned vessels not only fit the existing definition of a “warship” under the law of naval warfare, based on both the historical context of that term and its original purpose, but are capable of complying with the responsibilities that such a designation entails. In particular, this article has demonstrated that there is no indication that the requirements that a warship be under the command of a duly commissioned officer and manned by a crew under regular armed forces discipline were ever intended to dictate a requirement that personnel serve physically on board. Such a restrictive reading would be inconsistent with the historical context and purpose of the international conventions that gave rise to the warship definition.

Autonomy itself is not a concept that should be feared or opposed. While existing legal regimes may not have been drafted in anticipation of the development of vessels capable of independent navigation, this condition alone does not preclude the application of those principles to vessels incorporating these technological advancements. The legal frameworks themselves do not need to be changed; rather, we must become accustomed to simply applying them to the maritime systems of today—and tomorrow.