

# Naval mines: Legal considerations in armed conflict and peacetime

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## Abstract

*The purpose of this article is to examine the key elements of the legal framework in which naval mines are used both across the spectrum of conflict and during peacetime. The article will also consider the legal issues associated with the use of mines by States in international armed conflict, and address the distinct legal issues which arise in non-international armed conflict, where the emergence of an increasing presence of non-State armed groups has been a hallmark of the late twentieth and early twenty-first centuries. The obligations placed upon States in peacetime, and under the law of neutrality, when the use and presence of naval mines is a relevant factor will also be analyzed.*

**Keywords:** naval mines, naval warfare, armed conflict at sea, Hague Convention VIII.

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## Introduction

The development of increasingly complex and lethal military technologies as part of the suite of means and methods of warfare which can be employed by military forces to achieve their objectives has been a notable feature of modern military forces. There is no sign that such development is slowing down either, as a cursory glance at the number and frequency of military industry exhibitions which are held around the globe can easily show.<sup>1</sup> In the naval environment, the scope of this development of technologies has included a number of seismic shifts in the types of platforms which have pre-eminence in naval operations at any particular time, as well as continual upgrading and refinement of the weapons systems which are an integral part of these platforms. For example, at the turn of the twentieth century the introduction of the dreadnought<sup>2</sup> by the British Royal Navy resulted in almost instant and complete obsolescence of the large naval platforms which existed at the time. Similarly, the threat from submarine warfare which emerged during the First World War has resulted in the need to continually develop a range of specific weapon systems and techniques that are purposely designed to counter that unique threat. Further, in the early years of the Second World War, a new and dominant threat emerged with the advances in aviation warfare, including the successful deployment of naval aviation assets through the medium of the aircraft carrier, which now remains the dominant symbol of naval power projection.

While developments in naval platforms have been stark and obvious in terms of the clear changes that have occurred in their physical characteristics, the situation in relation to weapon systems is a little less obvious. In some ways it can be considered that this is one area of naval warfare which has not really experienced the fundamental changes that have been a hallmark of many others. For example, the projectile which is fired from a warship's main gun may now be much smaller in size than before,<sup>3</sup> but the basic design of the shell has not altered in any significant way since the earliest use of naval artillery.

1 For an indication of the size and scale of major military exhibitions, see, for example, the website for Euronaval 2016, the world meeting of naval technologies, which was held in Paris from 17 to 21 October 2016. Available at: [www.euronaval.fr/58/programme](http://www.euronaval.fr/58/programme) (all internet references were accessed in December 2016).

2 The name "dreadnought" – "fear nothing" – refers to the first of a class of new ships that was built for the Royal Navy in the early 1900s. Subsequent fleets of battleships constructed by numerous navies derived from the dreadnought. The vessel which gave its name to this class of ships, HMS *Dreadnought*, was launched in 1906 and included revolutionary features for its time, such as vastly improved armour and greater numbers of large-calibre guns, as well as being powered by steam turbine. For a detailed analysis of the development, impact and characteristics of the dreadnought see Richard Hough, *Dreadnought: A History of the Modern Battleship*, Periscope Publishing, Penzance, 2003.

3 During the era of the battleship, the size of projectile fired from the main armament steadily increased, with the largest gun types firing projectiles of 15-inch (381 mm), 16-inch (406.4 mm) and 18-inch (457.2 mm) calibre. In modern times, the main armament of a warship includes a variety of weapon systems, but the largest guns in regular use range between 3-inch (76.2 mm) and 5-inch (127 mm) calibre. For information relating to naval guns in current use, see, for example, Royal Australian Navy, "Naval Guns", available at: [www.navy.gov.au/fleet/weapons/naval-guns](http://www.navy.gov.au/fleet/weapons/naval-guns). The history of the Naval Gun Factory at the Washington Navy Yard provides detail on the steadily increasing size of naval guns in the early twentieth century. See Naval History and Heritage Command, *Washington Navy Yard: History of the Naval Gun Factory, 1883–1939*, available at: [www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/w/washington-navy-yard-history-naval-gun-factory.html](http://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/w/washington-navy-yard-history-naval-gun-factory.html).

Similarly, in relation to naval mine warfare, the basic concept of an explosion occurring when a vessel strikes or is in the immediate vicinity of a mine is still a dominant feature of this means of naval warfare. This statement does not ignore the fact that there have been numerous developments in naval mine technologies, both in terms of offensive and defensive capabilities. Rather, the point being made is that the basic structure of the threat posed by naval mines is one area of military operations where the nature of the threat and the effect of the weapon system are largely the same as when naval mines were first developed. A contextual illustration of this point arises from the previous reference to the introduction of the dreadnought: one of the earliest British naval losses in the First World War occurred when HMS *Audacious*, a King George V-class battleship, struck a naval mine in October 1914.<sup>4</sup> Despite being one of the most modern ships in the Royal Navy, the vessel was no match for a relatively simple naval mine and sank after striking the mine, without ever being involved in operations against the enemy.

The threat posed by mines is mentioned regularly in academic and military literature, but it seems to be invariably accompanied by a recognition that many navies are inadequately equipped to deal with this threat effectively. For example, in 2009 the US Navy reported that “more than a quarter-million sea mines of more than 300 types are in the inventories of more than 50 navies worldwide”.<sup>5</sup> A more recent report noted that Iran has an estimated several thousand naval mines (perhaps as many as 20,000), while North Korea has 50,000, China 100,000 and Russia an estimated quarter-million.<sup>6</sup>

Prior to further discussion, it is necessary to consider the characteristics of naval mines. The main types of naval mines include limpet mines (although these devices are not within the scope of the present discussion, they are typically attached to a vessel’s hull by a swimmer), contact mines which may be moored to the ocean floor, drift mines, floating contact mines, remote-controlled mines and magnetic/acoustic/pressure mines. Naval mines with special characteristics include those that are delivered by air, mines with torpedo propulsion, vertical rising mines, hydrostatic depth control mines and “daisy-chain” mines (a mining technique that involves two or more mines being joined together by a length of cable so that when a ship passes between them, the mines all strike the vessel; this technique might have particular application in non-international armed conflict, where the potential use of maritime improvised explosive devices by non-State armed groups is perhaps most likely).<sup>7</sup>

4 See James Goldrick, *Before Jutland: The Naval War in Northern European Waters, August 1914–February 1915*, Naval Institute Press, Annapolis, MD, 2015, pp. 156–158.

5 US Navy, “21st Century U.S. Navy Mine Warfare: Ensuring Global Access and Commerce”, Program Executive Office for Littoral and Mine Warfare, Expeditionary Warfare Directorate, June 2009, p. 8.

6 Sydney J. Freedberg Jr, “Sowing the Sea with Fire: The Threat of Sea Mines”, *Breaking Defense*, 30 March 2015, available at: <http://breakingdefense.com/2015/03/sowing-the-sea-with-fire-how-russia-china-iran-lay-mines-and-how-to-stop-them/>.

7 See Scott C. Truver, “Taking Mines Seriously: Mine Warfare in China’s Near Seas”, *Naval War College Review*, Vol. 65, No. 2, 2012, pp. 33–36.

The illustrations used to set the scene in this article primarily refer to issues that occurred over a century ago. In some ways this is entirely fitting, as the primary legal instrument which deals with naval mines, Hague Convention (VIII) Relative to the Laying of Automatic Submarine Contact Mines of 18 October 1907<sup>8</sup> (Hague Convention VIII), also dates from that period. Despite many advances in both weaponry and the law governing armed conflict which have occurred since the early 1900s, there has been no further agreement on any international legal instrument which specifically deals with naval mines.<sup>9</sup> As Hague Convention VIII, while dated, is the only treaty which specifically deals with the regulation of naval mine warfare in any type of conflict, this article will by necessity consider some of the other international legal instruments which are applicable in different situations in which naval mines might be used. Reference to a number of seminal international law cases which have involved situations where naval mines have been used will also form a key part of the legal analysis that will be undertaken.

Finally, this article has been constructed using a selective approach to each topic which is aimed at ensuring that sufficient information regarding key aspects is addressed, while noting that a greater level of detail on each particular aspect of naval mine warfare can be found elsewhere.<sup>10</sup>

## Characteristics of naval mines

Before embarking on this legal analysis, it is appropriate to consider what basic and special characteristics make naval mines such a unique weapon in terms of both their design and purpose. From a design perspective, naval mines can be constructed in a surprisingly simple manner. At the most basic level, a contact naval mine may simply consist of amounts of high explosive which detonate upon impact if a vessel touches the mine. At the other end of the spectrum, we find naval mines that are activated by a complex and highly discriminating variety of acoustic, seismic pressure or magnetic signatures.<sup>11</sup> In terms of purpose, the primary reason for deploying a naval mine is to sink or damage vessels, with a consequent disruption of sea lanes and shipping that will permit control of the sea, or areas of the sea, as well as

8 Convention (VIII) Relative to the Laying of Automatic Submarine Contact Mines, 36 Stat. 2332, The Hague, 18 October 1907 (Hague Convention VIII).

9 Sweden sponsored a number of proposals to develop a Protocol to the Conventional Weapons Convention dealing with the topic of naval mines, but in the face of little international support these proposals have not been progressed. See Louise Doswald-Beck (ed.), *San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, Cambridge University Press, Cambridge, 1995 (San Remo Manual), p. 169; see also Yoram Dinstein and Fania Domb (eds), *The Progression of International Law: Four Decades of the Israel Yearbook on Human Rights*, Brill Nijhoff, Leiden, 2011, p. 375.

10 Recent papers that deal in greater detail with selected aspects of mine warfare, and provide a contemporary analysis of associated legal issues, were published in the Naval Mine Warfare Forum which appeared in *International Law Studies*, Vol. 90, 2014, available at: [stockton.usnwc.edu/ils/vol90/iss1/](http://stockton.usnwc.edu/ils/vol90/iss1/).

11 For a description of mine types, see S. C. Truver, above note 7.

contributing to sea area denial. In fact, naval mines have been described as “amongst the oldest, cheapest and most dangerous anti-access/area denial (A2/AD) threats faced by the United States Navy”.<sup>12</sup> Of particular note is the observation that it is not actually necessary to deploy any mines in order to present a credible threat, as the mere capacity to threaten such deployment will be sufficient to raise a doubt regarding sea safety. Further, it has been observed that mines have been responsible for the vast majority of warship losses or serious damage that has occurred since the end of the Second World War.<sup>13</sup>

## Historical context

One of the earliest examples of incendiary or explosive material as a means or method of naval warfare was the use of “Greek Fire” by the Byzantine Greeks in approximately 670 AD.<sup>14</sup> While not directly analogous to the operation of a modern naval mine, the technique employed by the Greeks nevertheless demonstrated that naval warfare could be conducted in a manner that was devastating to opposing naval forces but did not require close-quarter fighting onboard the opponent’s vessel. Although sources provide varying accounts of the usage of mines at sea during the centuries which followed,<sup>15</sup> there is little doubt that the development of weapons which possessed many of the elements at the core of the modern naval mine had occurred by the time the nineteenth century began.<sup>16</sup> Naval mines were used in a number of conflicts during the nineteenth century, including the Crimean War, the American Civil War, the war between Russia and Turkey in 1877–78 and the war between China and France in 1884–85. Further use of naval mines occurred during the Boxer Rebellion in China at the end of the nineteenth century, and naval mines were extensively used during the Russo-Japanese war of 1904–05. In fact, it was the use of naval mines during the Russo-Japanese war which led to the inclusion of mines as a topic requiring

12 Dave Majumdar, “Sea Mines: The Most Lethal Naval Weapon on the Planet”, *The National Interest*, 1 September 2016, available at: [nationalinterest.org/blog/the-buzz/sea-mines-the-most-lethal-naval-weapon-the-planet-17559](http://nationalinterest.org/blog/the-buzz/sea-mines-the-most-lethal-naval-weapon-the-planet-17559).

13 *Ibid.* See also S. C. Truver, above note 7, p. 32; Andrew S. Erikson, Lyle J. Goldstein and William S. Murray, *Chinese Mine Warfare: A PLA Navy “Assassin’s Mace” Capability*, Naval War College, China Maritime Studies No. 3, 2009, p. 1.

14 For an explanation of “Greek Fire”, see: [www.britannica.com/technology/Greek-fire](http://www.britannica.com/technology/Greek-fire).

15 See, for example, the brief commentary regarding the use and effectiveness of naval mines during the period from 1778 until the 1990s in S. C. Truver, above note 7, pp. 30–32.

16 Some scholars attribute the invention of the modern naval mine to the Chinese during the fourteenth century. See, for example, Joseph Needham, *Science and Civilisation in China*, Vol. 5, Part 7: *Military Technology: The Gunpowder Epic*, Cambridge University Press, Cambridge, 1986, pp. 192–209. For others, the focus is on the use of naval mines by Spain during the Siege of Antwerp during the sixteenth century: see Adam Roberts and Richard Guelff (eds), *Documents on the Laws of War*, 3rd ed., Oxford University Press, Oxford, 2000, p. 104; Howard S. Levie, *Mine Warfare at Sea*, Martinus Nijhoff, Dordrecht, 1992, pp. 9–18.

attention during the Hague Conference of 1907, with the outcome being Hague Convention VIII.<sup>17</sup>

As an aside, it was during the American Civil War that a famous incident involving the use of naval mines occurred, when Admiral Farragut gave his oft-quoted (and perhaps misquoted) direction to “damn the torpedoes” when his naval forces were involved in battle at Mobile Bay. In fact, the “torpedoes” to which Farragut referred were an early version of a naval mine.<sup>18</sup> His order followed the sinking of the ironclad *Tecumseh*, which had failed to stay within the red buoys marking the safe passage area which had been carefully surveyed by his staff for a number of weeks prior to Farragut’s ships entering Mobile Bay on 5 August 1864,<sup>19</sup> and directed the commanding officers of the ships in his squadron to ignore the serious threat faced by their ships from mines that had been placed in the water to impede passage.

Subsequently, naval mines have been used in almost every major maritime conflict that has occurred during the twentieth and twenty-first centuries,<sup>20</sup> and due to the potency of the threat posed by naval mines, this use has been accompanied by the development of extensive mine counter-measure and clearing techniques which continue into the modern era.<sup>21</sup>

## Legal framework

### Hague Convention VIII

Hague Convention VIII is a relatively concise document, and it is appropriate to consider the key aspects of this instrument as a preliminary element of the

17 See above note 8. See also Steven Haines, “1907 Hague Convention VIII relative to the Laying of Automatic Submarine Contact Mines”, *International Law Studies*, Vol. 90, 2014, pp. 418–420. For a brief description of the use of naval mines during the Russo-Japanese war, see H. S. Levie, above note 16, pp. 17–18; see also David Letts and Rob McLaughlin, “Law of Naval Warfare”, in Rain Liivoja and Tim McCormack (eds), *Routledge Handbook of the Law of Armed Conflict*, Routledge, London, 2016, p. 271.

18 At the time, the weapons that are now known as “mines” were commonly referred to as “torpedoes” – hence the use of the latter term in the quote attributed to Farragut. See Tamara Moser Melia, “Damn the Torpedoes: A Short History of US Naval Mine Countermeasures, 1777–1991”, Contributions to Naval History No. 4, Naval Historical Center, Washington, DC, 1991, pp. 2, available at: [edocs.nps.edu/dodpubs/topic/general/DamnTorpedoesWhole.pdf](https://edocs.nps.edu/dodpubs/topic/general/DamnTorpedoesWhole.pdf); H. S. Levie, above note 16, p. 16.

19 See T. M. Melia, above note 18, pp. 1–3.

20 Naval mines were used extensively during the First World War, the Second World War, the Korean War, the Vietnam War, the 1980–88 Iran–Iraq War, the 2003 Gulf War and the 2011 Libyan conflict. See Wolff Heintschel von Heinegg, “Methods and Means of Naval Warfare in Non-International Armed Conflicts”, in Kenneth Watkin and Andrew J. Norris (eds), *Non-International Armed Conflict in the Twenty-First Century*, Vol. 88, US Naval War College, International Law Studies, Newport, 2012, pp. 211–212; see also selected examples of mine warfare practices from the First World War and Second World War in Peter Jones, *Australia’s Argonauts*, Echo Books, West Geelong, 2016, pp. 123, 291, 339–340, 368.

21 A recent example of the emphasis placed on the development of modern mine-clearance and warfare capabilities can be seen in the establishment of Australian Mine Warfare Team 16 by the Royal Australian Navy, which is intended to “deliver a sustainable, full-spectrum, deployable mine warfare capability to enable future expeditionary maritime task group operations”. See: [news.navy.gov.au/en/Jul2016/Fleet/3079/New-mine-warfare-team-established.htm](https://news.navy.gov.au/en/Jul2016/Fleet/3079/New-mine-warfare-team-established.htm).

analysis undertaken here. The brevity of Hague Convention VIII is not surprising given that the Hague Conference of 1907 produced thirteen Conventions (and one Declaration), and each Convention dealt with a discrete topic related to warfare that had relevance at the time.<sup>22</sup>

One clear piece of evidence regarding the potential effect of naval mines on commercial and naval shipping can be gleaned by considering that during the Hague Conference, the position advocated by certain British commercial interests was for Britain to seek an outright ban on the use of naval mines in any circumstances.<sup>23</sup> This approach was not supported by the Royal Navy, which was the dominant naval force at the time, and the ultimate result was an attempt by Britain at the Conference to obtain tight restrictions on the use of mines at sea.<sup>24</sup> There was recognition among other participants at the Conference, who had indicated little (if any) support for the position adopted by British commercial interests, that there should be some legal limits placed on the manner in which mines were used in armed conflict at sea.

Reference to the full title of Hague Convention VIII – Convention (VIII) relative to the Laying of Automatic Submarine Contact Mines – reveals that only one type of mine is actually the subject of the Convention, namely “automatic contact mines”.<sup>25</sup> However, it can be argued that the principles regarding the use of mines during armed conflict that are derived from Hague Convention VIII have now become part of the customary law governing the use of all types of these weapons.<sup>26</sup>

In terms of detail, Hague Convention VIII contains thirteen articles, of which only the first seven can really be considered to be the operative part of the

22 See the Proceedings of the Hague Peace Conferences at: [www.loc.gov/rr/frd/Military\\_Law/pdf/Hague-Peace-Conference\\_1907-V-1.pdf](http://www.loc.gov/rr/frd/Military_Law/pdf/Hague-Peace-Conference_1907-V-1.pdf), especially pp. 272–288 in relation to that part of the Conference which dealt with naval mines.

23 S. Haines, above note 17, p. 420.

24 *Ibid.* See also the San Remo Manual, above note 9, p. 168, where it is contended that at “the time the Convention was drafted, it was deplored that no absolute prohibition could be agreed upon”. See also Y. Dinstein and F. Domb (eds), above note 9, p. 375, where it is noted that “Great Britain had urged outlawing the use of automatic contact mines in open sea areas beyond the belligerents’ territorial waters” as a means of preserving its naval dominance, but this proposal was not supported as “the majority of States represented at The Hague ... [were] ... unwilling to refrain from the use of this most effective means of naval warfare”.

25 The title of Hague Convention VIII is “relative to the Laying of Automatic Submarine Contact Mines”, but the text of the Convention excludes the word “submarine” and refers only to “automatic contact mines”.

26 See, for example, the San Remo Manual, above note 9, p. 169, where it is noted that “practice by belligerents in the first Gulf War showed that the provisions of the Convention have continued validity in modern naval warfare”. The status of Hague Convention VIII as customary international law is left as an open question by A. Roberts and R. Guelff, above note 16, p. 103, who merely observe that “to the extent that any aspect of the Convention may be considered customary international law, such aspect would be applicable to all States and the Convention’s ‘general participation clause’ (Article 7) would cease to be relevant in that regard”. Note also the quotation regarding the Soviet view of Hague Convention VIII in H. Levie, above note 16, p. 175, that “for all its weak points the VIII Hague Convention is regarded as customary international law of the sea”. Haines also considers that “the rules contained in the 1907 Convention are regarded as having attained customary status in relation to automatic contact mines alone”, and he observes that “when combined with other elements of customary law” the result was the production of the rules which are provided in the San Remo Manual: S. Haines, above note 17, p. 443.

Convention.<sup>27</sup> Further, it is only Articles 1–5 of Hague Convention VIII that provide the essential elements of the law which now governs the use of naval mines in armed conflict (both international armed conflict (IAC) and non-international armed conflict (NIAC)). These articles, according to the authors of the *San Remo Manual on International Law Applicable to Armed Conflicts at Sea* (San Remo Manual), can be summarized into the following rules:<sup>28</sup>

- mines can only be used for legitimate military purposes (including sea denial to the enemy);
- belligerents can only lay mines which become neutralized when effective control over the mine is lost;
- free-floating mines are forbidden unless they are directed against a military objective and they become harmless within an hour after control over the mine is lost;
- notification and recording of mine locations must occur, especially so that such locations can be cleared of mines once hostilities end;
- belligerents are not permitted to deploy mines in neutral waters or to use mines in a way that will have the practical effect of preventing passage between neutral waters and international waters.

27 The first seven articles of Hague Convention VIII are:

Article 1. It is forbidden:

1. To lay unanchored automatic contact mines, except when they are so constructed as to become harmless one hour at most after the person who laid them ceases to control them;
2. To lay anchored automatic contact mines which do not become harmless as soon as they have broken loose from their moorings;
3. To use torpedoes which do not become harmless when they have missed their mark.

Article 2. It is forbidden to lay automatic contact mines off the coast and ports of the enemy, with the sole object of intercepting commercial shipping.

Article 3. When anchored automatic contact mines are employed, every possible precaution must be taken for the security of peaceful shipping.

The belligerents undertake to do their utmost to render these mines harmless within a limited time, and, should they cease to be under surveillance, to notify the danger zones as soon as military exigencies permit, by a notice addressed to ship owners, which must also be communicated to the Governments through the diplomatic channel.

Article 4. Neutral Powers which lay automatic contact mines off their coasts must observe the same rules and take the same precautions as are imposed on belligerents.

The neutral Power must inform ship owners, by a notice issued in advance, where automatic contact mines have been laid. This notice must be communicated at once to the Governments through the diplomatic channel.

Article 5. At the close of the war, the Contracting Powers undertake to do their utmost to remove the mines which they have laid, each Power removing its own mines.

As regards anchored automatic contact mines laid by one of the belligerents off the coast of the other, their position must be notified to the other party by the Power which laid them, and each Power must proceed with the least possible delay to remove the mines in its own waters.

Article 6. The Contracting Powers which do not at present own perfected mines of the pattern contemplated in the present Convention, and which, consequently, could not at present carry out the rules laid down in Articles 1 and 3, undertake to convert the materiel of their mines as soon as possible, so as to bring it into conformity with the foregoing requirements.

Article 7. The provisions of the present Convention do not apply except between Contracting Powers, and then only if all the belligerents are parties to the Convention.

28 These “rules” are a summary that has been extracted from the commentary relating to mines as a means of warfare which are identified in the San Remo Manual, above note 9, pp. 169–176.



Elaboration of each of these rules as they apply in IAC, NIAC and peacetime, and as they affect the behaviour of neutral States, will be undertaken throughout the remainder of this article.

## The ICJ decisions

The use of naval mines has been featured prominently in three key decisions of the International Court of Justice (ICJ): the *Corfu Channel* case,<sup>29</sup> the *Nicaragua* case<sup>30</sup> and the *Oil Platforms* case.<sup>31</sup> As there are elements from each of these decisions which can be applied to the legal considerations associated with the use of naval mines in IAC, NIAC and peacetime and by neutral States, these three cases provide a convenient point from which to commence further evaluation.

### The *Corfu Channel* case

The circumstances of the *Corfu Channel* case<sup>32</sup> arose in the immediate aftermath of the Second World War, and involved the passage undertaken by some British warships in the eastern part of the Mediterranean Sea off the coast of Albania in 1946. Although global conflict had concluded the previous year, tensions still existed in various locations throughout the world as States tried to adjust to what was hoped would be a lasting period of peace. In Albania, as the regime of Enver Hoxha sought to consolidate its power following the conclusion of the Second World War, the country was developing as a socialist State with antipathy towards Western powers. Against this background, some ships of the British Mediterranean Fleet undertook passage through the Corfu Channel in May 1946 and were fired upon by Albanian shore batteries. Great Britain demanded an apology from Albania, but this was refused. Evidence presented to the ICJ showed that in September 1946, Great Britain was considering establishing diplomatic relations with Albania and sought to determine if the Albanian government had “learnt to behave themselves”.<sup>33</sup> In particular, the British government wanted to know if any British ships had passed through the Corfu Channel since the passage of its fleet in May, and advice was provided by the commander-in-chief of the Mediterranean Fleet that no ships had done so but a further squadron of ships would sail through the Corfu Channel in October 1946.<sup>34</sup>

It was during the October transit that tragedy descended upon the British vessels, with two of them striking mines; nearly fifty sailors lost their lives, and

29 ICJ, *Corfu Channel Case (United Kingdom v. Albania)*, Judgment, *ICJ Reports* 1949.

30 ICJ, *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Judgment, *ICJ Reports* 1986.

31 ICJ, *Case Concerning Oil Platforms (Islamic Republic of Iran v. United States of America)*, Judgment, *ICJ Reports* 2003.

32 A comprehensive analysis of the current relevance of the *Corfu Channel* case can be found in Sarah Heathcote, Karine Bannelier and Theodore Christakis (eds), *The ICJ and the Evolution of International Law: The Enduring Impact of the Corfu Channel Case*, Routledge, London, 2012.

33 ICJ, *Corfu Channel*, above note 29, p. 28.

34 *Ibid.*

around the same number were injured. The presence of naval mines was not expected by the British, as the Corfu Channel had been swept clear of mines the previous year and was therefore considered “safe” water. In direct response to the British vessels striking mines, a decision was made to implement Operation Retail,<sup>35</sup> which involved the clearance of mines from the Corfu Channel by British forces, including in areas that were considered to constitute Albanian territorial waters,<sup>36</sup> but without the permission of Albanian authorities. Diplomatic efforts to resolve the ensuing dispute between Britain and Albania, including obtaining the involvement of the United Nations (UN) Security Council, proved to be unsuccessful and the matter was referred to the ICJ by the United Kingdom.<sup>37</sup>

For present purposes it is not necessary to undertake a full analysis of the case that was brought before the ICJ, but in terms of relevance to issues affecting the use of naval mines, some important principles emerged. First, it is clear from the judgment that a coastal State may deploy mines in its territorial waters in times of peace but in so doing it must not allow an unreported danger to shipping to exist.<sup>38</sup> In the *Corfu Channel* case, the ICJ found that the facts presented supported the inescapable conclusion that the presence and location of the mines must have been known by Albanian authorities and accordingly there was a positive obligation placed upon Albania to ensure that notification of the danger to shipping was provided to the international community.<sup>39</sup> Second, there is no unilateral right available to a State which would permit its military forces to enter another State’s territorial sea and conduct mine-clearing operations in the absence of coastal State consent.<sup>40</sup> The rationale which underpins this principle can now be found in Article 2 of the 1982 UN Convention on the Law of the Sea (UNCLOS),<sup>41</sup> which stipulates that a coastal State’s sovereignty extends to the territorial sea – hence any activity in the territorial sea by other States would have to be in conformity with the legal rights over that area of sea which the coastal State possesses. Accordingly, the mine-clearing in the Corfu Channel that was undertaken by British forces as part of Operation Retail was found to have violated Albanian sovereignty and was therefore a breach of international law.<sup>42</sup> Finally, the third principle which emerged from the case that warrants

35 *Ibid.*, pp. 32–35. Operation Retail was conducted from 12 to 13 November 1946, when twenty-two submarine contact mines were discovered in the Corfu Channel and removed from their moorings by British forces.

36 At the time, there was no codified agreement on the maximum breadth of a State’s territorial waters, but there was wide acceptance of a maximum breadth of 3 nautical miles as a matter of customary international law. Codified agreement regarding the maximum breadth of the territorial sea (12 nautical miles) was finally reached with the entry into force of the United Nations Convention on the Law of the Sea, 1833 UNTS 3, 10 December 1982 (entered into force 16 November 1994) (UNCLOS).

37 ICJ, *Corfu Channel*, above note 29, pp. 5–7.

38 See the discussion by the Court regarding the factual situation that existed in the Corfu Channel during the period May–October 1946: *ibid.*, pp. 19–22.

39 *Ibid.*, pp. 22–23.

40 *Ibid.*, pp. 32–35.

41 UNCLOS, Art. 2.

42 ICJ, *Corfu Channel*, above note 29, p. 35.

consideration in the present context is the positive obligation placed upon a State to ensure that its waters are not used by other States (or organizations – including non-State actors) in a manner that would present a danger to vessels which are legitimately using those waters. In this regard, the argument raised by Albania that it had not laid mines in the Corfu Channel, but that the mines must have been placed there by unknown agents without Albanian knowledge or consent, was rejected by the ICJ as being unsupported by the facts of the case, including the geographical characteristics of the area in which the mines were located.<sup>43</sup> The Court considered there was simply no possibility that unknown agents could have deployed mines in the Albanian waters of the Corfu Channel without being observed by the Albanian authorities, who admitted in evidence that they were keeping a very close watch over the Corfu Channel.<sup>44</sup>

### The *Nicaragua* case

The use of naval mines in the *Nicaragua* case occurred in the context of a NIAC which was taking place between the government of Nicaragua and groups which sought to displace that government.<sup>45</sup> Relevantly, the United States provided support in a number of ways to one of these groups, the contras, in their efforts to overthrow the Nicaraguan government. It was the nature of this support, and the issue of whether elements of the support constituted violations of international law, that formed the foundation of the case brought against the United States by Nicaragua.

One element of the support provided to the contras by the United States was the provision of assistance by deploying naval mines in the internal waters and the territorial sea of Nicaragua.<sup>46</sup> In relation to this issue, the ICJ determined that the United States had breached the following obligations under customary international law: not to use force against another State, not to intervene in the internal affairs of another State, not to violate the sovereignty of another State and not to interrupt peaceful maritime commerce.<sup>47</sup>

In reaching this conclusion, the ICJ considered the factual circumstances that existed in Nicaraguan internal waters and territorial sea during February and March 1984. The Court noted the Nicaraguan claim that twelve vessels struck mines during this period and that “14 people were wounded and two people

43 *Ibid.*, pp. 18–22.

44 *Ibid.*, pp. 21–22.

45 The two main parties involved in the conflict were the Sandinistas, who came to power in Nicaragua at the conclusion of the revolution of 1978–79, and the contras, which is the generic name given to a number of groups which were attempting to overthrow the Nicaraguan government in the early 1980s. The contras received various types of support from the United States.

46 See ICJ, *Nicaragua*, above note 30, paras 75–80, 215, 292.

47 *Ibid.*, para. 292, finding 7. Although not central to the theme of this article, as a consequence of the finding regarding the deployment of naval mines, the ICJ also found the United States to be in breach of its obligations under the Treaty of Friendship, Commerce and Navigation between the United States of America and the Republic of Nicaragua, 367 UNTS 3, 21 January 1956 (entered into force 24 May 1958).

killed”.<sup>48</sup> The Court also noted that the exact location and precise type of mine used was information that was not clarified before it.<sup>49</sup> The Court undertook further analysis of the evidence regarding the laying of mines that was made available to it, and although there is some discrepancy among the information provided to the Court, it was nevertheless able to conclude that

on a date in late 1983 or early 1984, the President of the United States authorized a United States government agency to lay mines in Nicaraguan ports; that in early 1984 mines were laid in or close to the ports of El Bluff, Corinto and Puerto Sandino, either in Nicaraguan internal waters or in its territorial sea or both, by persons in the pay and acting on the instructions of that agency, under the supervision and with the logistic support of United States agents; that neither before the laying of the mines, nor subsequently, did the United States Government issue any public and official warning to international shipping of the existence and location of the mines; and that personal and material injury was caused by the explosion of the mines, which also created risks causing a rise in marine insurance rates.<sup>50</sup>

This finding by the ICJ represents clear authority that the United States had breached its international legal obligations under customary international law by failing to disclose the existence and the location of the mines it had laid in the waters of Nicaragua.<sup>51</sup> Although not representing the unanimous view of the ICJ, the finding also clearly indicates that the Court considered there is an obligation placed upon those who deploy naval mines, even in times of armed conflict, to ensure that those mines do not interfere with the lawful activities of other users of maritime areas. However, the Court expanded on this point by stipulating that “the laying of mines in the waters of another State without any warning or notification is not only an unlawful act but also a breach of the principles of humanitarian law underlying the Hague Convention No. VIII of 1907”.<sup>52</sup>

In some ways this reasoning by the ICJ represents an expanded interpretation of Hague Convention VIII, as the Court applied “the principles of humanitarian law underlying the specific provisions of the Convention”<sup>53</sup> to the factual circumstances that existed in the *Nicaragua* case. In doing so, the Court relied on its earlier finding that Albania’s obligations in the *Corfu Channel* case were based on “certain general and well-recognized principles”, including “elementary considerations of humanity”.<sup>54</sup>

In this regard, it is clear from the ICJ’s consideration of the use of naval mines in the *Nicaragua* case that there are limits applicable to the manner in

48 ICJ, *Nicaragua*, above note 30, para. 76.

49 *Ibid.*

50 *Ibid.*, para. 80.

51 *Ibid.*, para. 292, finding 8.

52 ICJ, *Nicaragua*, Judgment (Merits), Summary, 27 June 1986, p. 166, available at: [www.icj-cij.org/docket/files/70/6505.pdf](http://www.icj-cij.org/docket/files/70/6505.pdf).

53 ICJ, *Nicaragua*, above note 30, para. 215.

54 *Ibid.*; ICJ, *Corfu Channel*, above note 29, p. 22. The Court noted that such “elementary considerations of humanity” are “even more exacting in peace than in war”.

which mines are deployed, and these limits apply regardless of whether the mines are used in peacetime or during armed conflict. Further discussion of this point will occur below in relation to both NIAC and the obligations placed upon neutral States.

### The *Oil Platforms* case

The factual circumstances at the time of the incidents which gave rise to the *Oil Platforms* case were complex, as they emanated from a lengthy, and ongoing, IAC between Iran and Iraq.<sup>55</sup> In short, the case arose following military action that the United States took against certain Iranian oil platforms in October 1987 and April 1988 following attacks against US-owned or US-flagged vessels. At the time there were a large number of naval and merchant vessels from a variety of States operating in the region, with the naval vessels involved in operations aimed at ensuring that oil supplies out of the Gulf could continue to flow safely.

The evidence provided to the ICJ regarding the use of naval mines during the IAC indicated that both Iran and Iraq were involved in extensive mine-laying activities throughout the conflict.<sup>56</sup> It was also questionable whether adherence to the legal requirements associated with the deployment of naval mines by both Iran and Iraq was in conformity with their respective obligations under customary international law.<sup>57</sup>

In justifying the action that it took in attacking an Iranian oil platform in 1987, the United States referenced a number of attacks against US shipping, including vessels that had been re-flagged to the United States.<sup>58</sup> The United States also claimed that shots were fired at a US Navy helicopter by Iranian gunboats and from personnel located on the Iranian Reshadat oil platform.<sup>59</sup> Finally, the United States claimed that it had caught an Iranian vessel (the *Iran Ajr*) in the process of laying mines in international waters; Iran disputed this claim by stating that the vessel was indeed carrying mines, but only for the purpose of transporting them to another location.<sup>60</sup>

The United States justified the attacks that took place against the Salman and Nasr oil platforms on 18 April 1988 on the basis of self-defence following the

55 The IAC between Iran and Iraq lasted from 1980 until 1988 and involved maritime, air and ground forces from both States.

56 ICJ, *Oil Platforms*, above note 31, para. 71.

57 ICJ, *Oil Platforms*, “Separate Opinion of Judge Simma”, *International Law Reports*, Vol. 130, p. 500, para. 43.

58 See ICJ, *Oil Platforms*, above note 31, para. 120, for a comprehensive list of vessels associated with the United States that were attacked in the Gulf between July 1987 and April 1988. The *Bridgeton*, which was re-flagged from Kuwait to the United States, struck a mine near Kuwait on 24 July 1987. See “Bridgeton is Latest of Five Gulf Tankers to Hit a Mine”, *Los Angeles Times*, 25 July 1987, available at: [articles.latimes.com/1987-07-25/news/mn-994\\_1\\_gulf-tankers](https://www.latimes.com/1987-07-25/news/mn-994_1_gulf-tankers). The *Texaco Caribbean*, which was operating under a charter to US interests, struck a mine near Fujairah on 10 August 1987: see “Texaco Supertanker Loaded with Iranian Oil Hits Mine: Cargo Leak, None Hurt, Owner Says”, *Los Angeles Times*, 10 August 1987, available at: [articles.latimes.com/1987-08-10/news/mn-230\\_1\\_tanker](https://www.latimes.com/1987-08-10/news/mn-230_1_tanker).

59 ICJ, *Oil Platforms*, above note 31, para. 63.

60 *Ibid.*

USS *Samuel B. Roberts* striking a mine four days earlier.<sup>61</sup> After conducting mine-clearing operations, with the assistance of other States, in the immediate vicinity of the position where the USS *Samuel B. Roberts* was struck, a number of mines with Iranian serial numbers were recovered.<sup>62</sup> The United States contended that these recovered mines and other evidence all pointed to Iranian culpability for the mine that struck the USS *Samuel B. Roberts*; Iran rejected this claim.<sup>63</sup> The Court's assessment of the evidence presented to it regarding the laying of mines, and the responsibility for laying the mine that was struck by the USS *Samuel B. Roberts*, was that the evidence was "highly suggestive, but not conclusive".<sup>64</sup>

It is interesting, if not a little puzzling, to note the ICJ's reasoning in relation to the question of whether the incident involving the USS *Samuel B. Roberts* could amount to an armed attack, which in turn would justify the United States taking action against Iran in self-defence. The Court did "not exclude the possibility that the mining of a single military vessel might be sufficient to bring into play the 'inherent right of self-defence'; but in view of all the circumstances"<sup>65</sup> of the case, the Court was unable to conclude that the United States was justified in using force in self-defence against the two Iranian oil platforms "in response to an 'armed attack' on the United States by Iran".<sup>66</sup> In reaching this conclusion, the Court was simply unwilling to accept the contention put forward by the United States that the mine which struck the USS *Samuel B. Roberts* had been laid by Iran. The Court observed that both belligerents had engaged in mine-laying operations at the time and therefore the Court could not be certain that Iran was responsible for laying the particular mine that struck the USS *Samuel B. Roberts*.

## Naval mines and the spectrum of armed conflict

The following part of the article will use the principles that can be gleaned from the above three cases, and the above analysis of Hague Convention VIII, as the primary basis from which to consider the impact of naval mines on situations that arise in IAC, NIAC and peacetime. The effect on neutral States, where relevant, will also be considered.

Before proceeding further, a preliminary issue that will be briefly considered is the potential consequences that might arise if the deployment of naval mines in certain circumstances can be viewed as a breach of the *jus ad bellum* by constituting a "threat or use of force" contrary to the UN Charter<sup>67</sup>

61 *Ibid.*, para. 67.

62 *Ibid.*, para. 69.

63 *Ibid.*, paras 69–70.

64 *Ibid.*, para. 71.

65 *Ibid.*, para. 72.

66 *Ibid.*

67 Charter of the United Nations, 1 UNTS XVI, 24 October 1945 (UN Charter), Art. 2(4). For additional detail regarding naval mines and the *jus ad bellum*, see David Letts, "Beyond Hague VIII: Other Legal Limits on Naval Mine Warfare", *International Law Studies*, Vol. 90, 2014, pp. 449–451.

and customary international law. It is certainly feasible that a State could offend the requirement to refrain from threatening the “territorial integrity or political independence”<sup>68</sup> of another State through the laying of naval mines in areas of the sea which directly affect that State.<sup>69</sup> One threshold issue that would arise in such circumstances is whether the laying of naval mines *per se* would constitute an armed attack and therefore trigger the right to respond to this action using the “inherent right of self-defense”.<sup>70</sup> Alternatively, the laying of naval mines by a State might be part of a response to a threat or use of force and in that sense constitute part of the action that a State can legitimately take when exercising its right of self-defence.

Of course, any assessment of action taken by States in laying naval mines will depend on the factual circumstances that exist in a given situation, and this brief comment on one element of the *jus ad bellum* does not adequately address the complexity of this topic. Nevertheless, the illustration is provided to demonstrate that the legal characterization of the use of naval mines may vary across the entire spectrum of laws applicable to conflict, including the *jus ad bellum*, and this will obviously impact on the legality of any response taken by a State.

## International armed conflict

When considering the use of naval mines in IAC, the situation is reasonably clear in terms of the applicable treaty law, which as noted earlier is limited to Hague Convention VIII – and as a strict matter of law only applies to automatic contact mines. In relation to the question of whether there is agreement regarding the status of the key provisions of Hague Convention VIII being considered as customary international law, there are two related aspects to consider. The first issue is whether the operative articles of Hague Convention VIII that deal with automatic contact mines can be considered part of customary international law, and the second is whether these principles can be extended to cover the use of naval mines generally in IAC – regardless of the type of mine deployed.<sup>71</sup> It is submitted that the key principles regarding the manner in which naval mines may be used in IAC that have been identified above do now constitute customary international law and are therefore binding on States regardless of whether or not the State is party to Hague Convention VIII.<sup>72</sup> Evidence to support this statement

68 *Ibid.*

69 This issue was one of the complaints raised against the United States in the *Nicaragua* case.

70 UN Charter, above note 67, Art. 51.

71 See commentary in the San Remo Manual, above note 9, p. 169, where it is noted that “the provisions of the Convention have continued validity in modern naval warfare”.

72 For extensive analysis of the customary international law status of Hague Convention VIII, see James J. Busuttill, *Naval Weapons Systems and the Contemporary Law of War*, Oxford University Press, Oxford, 1998, pp. 29–71, especially pp. 78–79.

can be found in the military law manuals of a number of States<sup>73</sup> and can also be found in the San Remo Manual.<sup>74</sup> Further, the three ICJ decisions which have been referred to earlier all acknowledge the customary legal principles that underpin Hague Convention VIII.

It is therefore clear that in IAC the use of naval mines in a manner which offends the operative parts of Hague Convention VIII, referred to above, is prohibited. Accordingly, naval mines, in particular mines that do not become harmless within a short period after control over them is lost, may not be used in circumstances where control over them is lost and they therefore pose an indiscriminate threat to all shipping. This prohibition reflects the requirement for military operations to be conducted only against military objectives. Laying naval mines that are solely targeted at commercial shipping is also not permitted, which reflects the prohibition in Article 2 of Hague Convention VIII, and if a belligerent loses control of its mines, notification of their presence (i.e., as a danger to shipping) should occur. There is also a prohibition placed on laying naval mines in the waters of neutral States,<sup>75</sup> as to do so would clearly be a breach of the neutral status of the State in question, and a requirement to assist with mine-clearing operations at the conclusion of hostilities.

Before turning to discussion of NIAC, it is useful to provide brief consideration of the ambiguity that accompanies warfare occurring in the “Gray Zone”<sup>76</sup> and assess what the impact, if any, might be for the use of naval mines. The main characteristics of Gray Zone operations include uncertain legal status of the conflict itself, lack of certainty regarding the status of participants and their objectives, and the predominant use of unconventional means and methods of warfare.<sup>77</sup> These types of operations may provide particular attraction for the use of naval mines in either offensive or defensive roles, especially if such use could be accomplished in a “set and forget” context. However, in order for such use to be lawful it is considered that certain basic concepts of warfare, especially the principle of distinction, would have to be adhered to. Additionally, the legal status of waters where naval mines are deployed in Gray Zone operations would also have to be considered, as would the applicability of legal sanction, including

73 For example, the recently released US Law of War Manual includes repeated reference to Hague Convention VIII as the authority for many of its contents: US Department of Defense, *Law of War Manual*, 2015 (US Law of War Manual), pp. 909–914. The Manual, which is published online and regularly updated, can be accessed at the US Department of Defense “Publications” web page, available at: [www.defense.gov/News/Publications](http://www.defense.gov/News/Publications). This practice is also adopted by the UK Ministry of Defence in the *Joint Service Manual of the Law of Armed Conflict*, JSP 383, 2004, amended in 2013, paras 13.52–13.64, available at: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/27874/JSP3832004Edition.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27874/JSP3832004Edition.pdf). A convenient source of access to a selection of military law manuals is provided by the US Naval War College’s Stockton e-portal, available at: [usnwc.libguides.com/c.php?g=86619&p=557511](http://usnwc.libguides.com/c.php?g=86619&p=557511).

74 See, generally, San Remo Manual, above note 9, pp. 168–176.

75 *Ibid.*, p. 173; see also US Law of War Manual, above note 73, p. 913.

76 For an assessment of the “Gray Zone”, see Hal Brands, “Paradoxes of the Gray Zone”, *Foreign Policy Research Institute E-Notes*, 5 February 2016, available at: [www.fpri.org/article/2016/02/paradoxes-grayzone/](http://www.fpri.org/article/2016/02/paradoxes-grayzone/).

77 See Joseph L. Votel, Charles T. Cleveland, Charles T. Connett and Will Irwin, “Unconventional Warfare in the Gray Zone”, *Joint Force Quarterly*, Vol. 80, No. 1, 2016.



potential criminal prosecution, in the case of the use of mines in circumstances where an IAC did not exist. The issue has considerable complexity, and further contemplation is beyond the scope of this article.

## Non-international armed conflict

Consideration of the legal issues relevant to naval warfare in NIAC is reasonably scant. Part of the reason for this situation may be that naval operations do not occur in NIAC with the same frequency with which land operations are undertaken,<sup>78</sup> and therefore material for analysis and case studies is much less available than is the case with IAC. As an example, writing in 1987, Ronzitti undertook an extensive survey of agreements and documents that are part of the law of naval warfare, but there was little focus on NIAC in this work.<sup>79</sup> Where there is mention of NIAC in Ronzitti's publication, it is approached from the perspective of belligerency and civil war,<sup>80</sup> using the lens of Article 1(4) of Additional Protocol I<sup>81</sup> as the mechanism for the analysis undertaken in order to determine whether a given situation constitutes IAC or NIAC, and in particular the potential consequences for those taking part. While this approach has its appeal, there is a certain limitation inherent in this methodology as Article 1(4) applies to IAC and is focused on certain types of conflict, namely those that emanate from fights against "colonial domination and alien occupation and against racist regimes". Therefore Article 1(4) does not cover situations where NIAC is the applicable legal regime and accordingly would not, for example, have applied during the Sri Lanka NIAC that occurred between 1983 and 2009.<sup>82</sup>

It might be expected that Additional Protocol II (AP II)<sup>83</sup> would have some provisions that are directly applicable to naval warfare in NIAC, but perusal of AP II will provide little satisfaction. In relation to the field of application of AP II, Article 1 is clear that a NIAC must occur "in the territory of a High Contracting Party"; this covers naval operations during a NIAC that take place in the internal waters and

78 Natalino Ronzitti, "Naval Warfare", *Max Planck Encyclopedia of Public International Law*, para. 35, available at: [opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e342#law-9780199231690-e342-div1-11](http://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e342#law-9780199231690-e342-div1-11).

79 Natalino Ronzitti (ed.), *The Law of Naval Warfare: A Collection of Agreements and Documents with Commentaries*, Martinus Nijhoff, Dordrecht, 1988.

80 *Ibid.*, pp. 10–13.

81 Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 3, 8 June 1977 (entered into force 7 December 1978) (AP I).

82 The Sri Lanka NIAC is unique in the sense that the Liberation Tigers of Tamil Eelam, which was the name of the group involved in the armed conflict against the Sri Lanka government, had a large and capable naval force (the "Sea Tigers") that included a mine-laying capability. N. Manoharan, "Tigers with Fins: Naval Wing of the LTTE", IPCS Article No. 1757, 1 June 2005, available at [www.ipcs.org/article\\_details.php?articleNo=1757&submit=Jump](http://www.ipcs.org/article_details.php?articleNo=1757&submit=Jump); "Sri Lanka Country Profile: Timeline", *BBC*, 21 September 2016, available at: [www.bbc.com/news/world-south-asia-11999611](http://www.bbc.com/news/world-south-asia-11999611); "Liberation Tigers of Tamil Eelam (LTTE)", *South Asia Terrorism Portal*, available at: [www.satp.org/satporgrp/countries/shrilanka/terroristoutfits/Ltte.htm](http://www.satp.org/satporgrp/countries/shrilanka/terroristoutfits/Ltte.htm).

83 Protocol Additional (II) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts, 1125 UNTS 609, 8 June 1977 (entered into force 7 December 1978) (AP II).

territorial sea of a State, but not those that occur in areas beyond the outer limit of the territorial sea.<sup>84</sup> Consequently, it is clear that during a NIAC naval mines can be used by the parties to the conflict in both the internal waters of the State and its territorial sea, but the position in relation to other areas of the sea is less certain and the absence of practical examples to draw upon does not assist in clarifying the situation. It has, however, been asserted that if a non-State party to a NIAC attempted to lay mines in the maritime zones of another State, a swift response from that State would inevitably occur.<sup>85</sup>

Other contemporary publications that deal with NIAC are almost completely silent on the topic of naval warfare. For example, the *Manual on the Law of Non-International Armed Conflict* makes only very brief reference to NIAC and naval warfare.<sup>86</sup> Sivakumaran's comprehensive evaluation of the law of NIAC<sup>87</sup> only refers to naval warfare in the briefest manner, when he cites the San Remo Manual<sup>88</sup> as being among those manuals that have contributed to the growth and development of international humanitarian law during the latter part of the twentieth century. Otherwise, the topic of naval warfare is simply not addressed by Sivakumaran in his book. Similarly, in the preface to Dinstein's recent publication dealing with NIACs, he notes their "preponderance and intensity",<sup>89</sup> yet the ensuing pages are again scant in terms of their discussion of any issues directly arising from naval warfare in NIAC.

Notwithstanding the relative scarcity of published material regarding naval warfare and NIAC,<sup>90</sup> there are clearly laws which apply to the use of naval mines during NIAC, especially in terms of the manner in which these weapons are deployed. Support for this statement can be obtained from the International Criminal Tribunal for the former Yugoslavia (ICTY) in the *Tadić* case, where it was stated that

customary rules have developed to govern internal strife. These rules ... cover such areas as protection of civilians from hostilities, in particular from indiscriminate attacks, protection of civilian objects, in particular cultural property, protection of all those who do not (or no longer) take active part in hostilities, as well as prohibition of means of warfare proscribed in international armed conflicts and ban of certain methods of conducting hostilities.<sup>91</sup>

84 See W. H. von Heinegg, above note 20, pp. 217–219.

85 *Ibid.*, p. 219.

86 Michael N. Schmitt, Charles H. B. Garraway and Yoram Dinstein, *The Manual on the Law of Non-International Armed Conflict with Commentary*, International Institute of Humanitarian Law, San Remo, 2006, p. 30, where the authors note the use of a free-floating naval mine as an example of an indiscriminate (and therefore prohibited) weapon in NIAC.

87 Sandesh Sivakumaran, *The Law of Non-International Armed Conflict*, Oxford University Press, Oxford, 2012.

88 *Ibid.*, p. 438.

89 Yoram Dinstein, *Non-International Armed Conflicts in International Law*, Cambridge University Press, Cambridge, 2014, p. xiii.

90 See comments on this topic in Rob McLaughlin, "The Law Applicable to Naval Mine Warfare in a Non-International Armed Conflict", *International Law Studies*, Vol. 90, 2014, pp. 476–479.

91 ICTY, *Prosecutor v. Dusko Tadić*, Case No. IT-94-1, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction (Appeals Chamber), 2 October 1995, para. 127.

Applying this logic, it is beyond dispute that mines which are used during a NIAC in an indiscriminate manner, such as free-floating mines in a sea area where there is a large volume of shipping, would offend the fundamental principle of distinction that governs all forms of armed conflict. Lack of publication of the existence of a minefield would also violate what can now be considered to be the basic legal requirements for the use of naval mines during armed conflict, including NIAC.<sup>92</sup> There are other ways in which mines could be used in NIAC that would be equally problematic. For example, using mines to institute a blockade in circumstances where the sole purpose of the blockade was to starve the civilian population would not be permissible, as starvation is not permitted as a method of warfare in IAC<sup>93</sup> or NIAC.<sup>94</sup>

It is clear that not all the rules that apply in IAC will directly apply in NIAC, due at least in part to the fact that there will always be at least one non-State party participating in a NIAC. Another distinction between IAC and NIAC is that the State involved will, assuming that it is successful against its opponent, most likely wish to pursue criminal sanctions against those who have participated in the conflict. Therefore some of the obligations that are placed upon States in IAC will simply not be able to be addressed by at least one of the parties to a NIAC.

A final general observation regarding NIAC is that States may consider that they obtain some advantage from the relative paucity of rules which directly and clearly apply during NIAC. If this line of reasoning is valid, States may take the view that during NIAC there is scope to act in any manner not expressly prohibited by international law (applying the “*Lotus* principle”),<sup>95</sup> and that there is thus an advantage to be gained by leaving the current incomplete suite of rules applicable in NIAC extant.

## Neutral States

The implications for neutral States are equally significant and flow from the requirement, under the law of neutrality, for a neutral State to behave in a manner that reflects its neutrality during any armed conflict. One preliminary remark, which distinguishes situations involving neutral States from peacetime, is that for the law of neutrality to apply there must be an armed conflict under way – that is, there must be a conflict to which a State has by its words or actions clearly established that it is neutral. In such situations, it is well established that

92 W. H. von Heinegg, above note 20, p. 221; this principle also follows the reasoning in the *Nicaragua* case, above note 30, para. 215.

93 AP I, Art. 54(1).

94 AP II, Art. 14; see also Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005, Rule 53, available at: [ihl-databases.icrc.org/customary-ihl/eng/docs/v1\\_rul\\_rule53](http://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule53).

95 Permanent Court of International Justice, *The Case of S. S. Lotus (France v. Turkey)*, Judgment, *PCIJ Series A*, No. 10, 7 September 1927.

the belligerents are not permitted to lay their mines in the internal waters, territorial sea or archipelagic waters of the neutral State.<sup>96</sup>

However, such restrictions do not apply to a neutral State in relation to its own waters. One way in which a neutral State may seek to protect its neutrality is by deploying naval mines in its own internal waters, territorial sea or archipelagic waters as a means of deterring the belligerents from conducting their operations in those areas. Such action would need to be cognizant of passage rights that vessels of other States enjoy in the territorial sea and archipelagic waters, and would therefore necessarily be accompanied by appropriate notification to shipping that there is a naval mine danger in such waters.<sup>97</sup>

In the *Nicaragua* case, the ICJ recognized the right of neutral States to lay mines in their own waters, citing Article 4 of Hague Convention VIII as authority and noting the requirement for advance notification of the presence of mines: “Neutral Powers which lay mines off their own coasts must issue a similar notification, in advance.”<sup>98</sup>

One other matter that will be remarked upon regarding neutral States is the issue of whether they are permitted to conduct mine-clearing activities in sea areas outside their territorial or archipelagic waters. It has been suggested that any such activity “must be approached cautiously and preferably conducted in a multinational context vice unilaterally”,<sup>99</sup> but the view taken here is that there is no legal requirement for mine-clearing activity by a neutral State to be undertaken as part of a multinational operation. It may indeed be preferable for the sake of appearance, but the neutrality of any State will be a question of fact in the particular circumstances. It is therefore considered that mine-clearance activities in areas outside of a belligerent’s territorial sea or archipelagic waters for the purpose of ensuring safe passage for a neutral State’s vessels (or vessels trading with that neutral State) would not result in an automatic assessment that the actions are inconsistent with neutral status.

## Peacetime

It is clear that in times of peace there are general obligations placed upon States to ensure their activities do not unlawfully interfere with the rights and activities of other States,<sup>100</sup> and it is equally clear that these obligations extend to the use of

96 The San Remo Manual, above note 9, notes the prohibition contained in Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War, 36 Stat. 2415, The Hague, 18 October 1907, Article 2, as well as the general prohibition on the use of force contained in Article 2(4) of the UN Charter; see also ICJ, *Nicaragua*, above note 30, para. 215.

97 See Wolff Heintschel von Heinegg, “Minelaying and the Impediment of Passage Rights”, *International Law Studies*, Vol. 90, 2014, for a detailed analysis of the impact of mine-laying on passage rights, including the impact on neutral States.

98 ICJ, *Nicaragua*, above note 30, para. 215.

99 W. H. von Heinegg, above note 20, p. 567.

100 See, generally, James Crawford, “State Responsibility”, *Max Planck Encyclopedia of Public International Law*, available at: [opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1093](https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1093); see also ICJ, *Corfu Channel*, above note 29, p. 22.

naval mines by States in peacetime. Although the 1982 UNCLOS does not deal directly with the issue of naval warfare, it does reflect these general obligations in a number of its articles where the requirement for States to behave in a manner that acknowledges the rights of other States is stipulated. For example, in a State's territorial sea the passage of a foreign vessel will not be considered "innocent" if the vessel engages in activities which are "a threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State",<sup>101</sup> and there is also specific reference to "the launching, landing or taking on board of any military device".<sup>102</sup> The combined effect of these two articles is that the deployment of naval mines in a foreign territorial sea during peacetime would not be consistent with the rights available to a State under the UNCLOS.

The situation is different for the coastal State, as it possesses sovereignty over its territorial sea and may therefore, in the present context, place naval mines in its own territorial sea subject to the State complying with its duty not to "hamper" the innocent passage of foreign ships.<sup>103</sup> The UNCLOS places an additional requirement on the coastal State to "give appropriate publicity to any danger to navigation, of which it has knowledge, within its territorial sea".<sup>104</sup> In effect, any mining in this manner by the coastal State would almost certainly necessitate the use of mines that do not explode in an uncontrolled manner, and therefore automatic contact mines would not be suitable for this purpose but other modern types of mines could be so used.

Further, if the coastal State is laying mines as part of a temporary suspension of passage in its territorial sea, it is required to do so in a way that does not discriminate "in form or in fact among foreign ships" and also ensure that the temporary suspension is "duly published".<sup>105</sup>

There are, however, certain situations where the deployment of naval mines in peacetime might appear to be inconsistent with the rights that are provided in the UNCLOS. The two most obvious of these are where it is contemplated that mines would be deployed in straits used for international navigation or in archipelagic sea lanes. In both cases, the passage rights that exist (transit passage<sup>106</sup> and archipelagic sea lanes passage<sup>107</sup> respectively) are non-suspendable and cannot be hampered,<sup>108</sup> so unless the coastal or archipelagic State can deploy its mines in a manner that does not offend this fundamental requirement, the laying of armed mines would not be permitted.<sup>109</sup>

101 UNCLOS, Art. 19(2)(a).

102 *Ibid.*, Art. 19(2)(f).

103 *Ibid.*, Art. 24(1). A coastal State also has sovereignty over its internal waters (see UNCLOS, Arts 2, 8), where no passage rights exist for foreign vessels and therefore the notification requirements may not be as relevant; in the case of archipelagic States, sovereignty exists over archipelagic waters (see UNCLOS, Art. 49) and the notification requirements are synonymous with those in the territorial sea.

104 *Ibid.*, Art. 24(2); see also W. H. von Heinegg, above note 20, p. 572–573.

105 UNCLOS, Art. 25(3).

106 *Ibid.*, Art. 38(1).

107 *Ibid.*, Art. 53.

108 *Ibid.*, Arts 44, 54.

109 See W. H. von Heinegg, above note 20, p. 573.

In summary, the use of naval mines by a State in peacetime is not inconsistent with international law. There are legitimate security concerns which can be addressed by the use of mines at sea, but there are also requirements placed on the State that deploys mines to ensure they are deployed in a way that does not unduly interfere with other legitimate users of maritime areas. There is certainly no general “ban” on the use of naval mines in peacetime.

## Future outlook and conclusion

One controversial issue that has not been addressed here is whether naval mines may be used to target war-sustaining efforts in IAC or NIAC. If an expansive view is taken, it would be possible to use naval mines in circumstances that are beyond those identified here – for example, the targeting of commercial shipping which is carrying goods that are being traded and the funds obtained are then used to pay for the cost of the conflict. The issue is a contentious one with no clear agreement among States, and reflects a wider argument regarding the differences that exist in defining the width of the legal standard that can be applied to determine the nature and character of military objectives.<sup>110</sup> The issue is also especially relevant in an era when the vast majority of armed conflicts are now non-international, and the principle of distinction causes considerable difficulty in its practical application. However, further discussion of this topic will need to wait as it is both outside the scope of this article and also awaiting clearer evidence of State practice in this area.<sup>111</sup>

In terms of the threat posed by naval mines, it is noted that significant naval mining capabilities are held by a relatively small number of States<sup>112</sup> and many of these mines are unsophisticated weapons that are unable to discriminate between targets. Naval mines are relatively inexpensive and can be easily deployed from any vessel with minimal training and without the need for special platforms, as was demonstrated during the Iran–Iraq war and the 1990–91 and 2003 Gulf wars. Truver makes the point that “in February 1991, the U.S. Navy lost command of the northern Arabian Gulf to more than 1,300 mines that had been sown by Iraqi forces”,<sup>113</sup> and this observation provides an example of the impact that can occur

110 See the discussion on this topic in William H. Boothby, *The Law of Targeting*, Oxford University Press, Oxford, 2012, p. 106 (including the references in the footnotes).

111 The United States has taken an expansive view by the inclusion of “war-sustaining” capabilities in the definition of military objective: see US Law of War Manual, above note 73, p. 214. A contrary view is expressed in Nils Melzer, *Interpretative Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law*, International Committee of the Red Cross, Geneva, 2009, pp. 51–55; see also Emily Camins, “The Past as Prologue: The Development of the ‘Direct Participation’ Exception to Civilian Immunity”, *International Review of the Red Cross*, Vol. 90, No. 872, 2008, p. 878.

112 S. C. Truver, above note 7, pp. 53–54, notes that China, Russia and North Korea all have significantly larger naval mine stockpiles than the United States; perhaps even more worrying is the assertion that more than twenty mine-producing States sell these weapons to other States and non-State actors, with obvious maritime security implications.

113 *Ibid.*, p. 30.

from the use of naval mines even in the absence of any significant naval capacity. Clearly, there is an ongoing threat to maritime security from naval mines.

Finally, while the specific legal regime that governs the use of one type of naval mine is dated and limited in its application, the basic legal principles that apply to the use of naval mines in each of the circumstances noted here are well established.<sup>114</sup> Of particular note is the observation that these principles reflect the fundamental concept of distinction, which is one of the main principles that underpins the conduct of hostilities in international humanitarian law. In particular, the legal norms associated with the use of naval mines in both IAC and NIAC do not deviate from the requirement that only military objectives may be lawfully targeted and civilians (and civilian objects) should not be the subject of attack.

If these principles are followed, the use of naval mines across the spectrum of conflict can lawfully occur. The overarching concern is, of course, that States and non-State groups will fail to do so, and it is therefore incumbent upon States to take the leading role in ensuring that compliance with the law is practised and observed. One positive step along this path could be to revise Hague Convention VIII so that it has contemporary relevance in the modern age.

114 It has not been possible to address here all the legal considerations that may potentially affect the legality of the use of naval mines as a means of warfare. Detailed examination of other legal instruments that may be applicable was undertaken in D. Letts, above note 67, pp. 446–474.