1907 Hague Convention VIII
Relative to the Laying of Automatic Submarine Contact Mines

Steven Haines

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INTRODUCTION

There were essentially two reasons why the modern international humanitarian law (IHL)/law of armed conflict (LOAC) began its development in the middle of the nineteenth century, one commendably idealistic and the other profoundly pragmatic. The first was about altruistic concern for basic humanity in relation to the treatment of the victims of war. It resulted in the creation of the Red Cross movement and the series of Geneva conventions, the first of which was agreed in 1864. It also produced the first international agreement in modern times prohibiting the use of a weapon for reasons of humanity, the 1868 St Petersburg Declaration.1 That Declaration has been followed by a variety of treaties aimed at banning or restricting the use of weapons that fail to comply with the now well-established customary principles of humanity and distinction.2

The second reason was driven by the selfish—or national—interests of the most powerful States; it resulted initially in the 1856 Paris Declaration, the essential purpose of which was to secure freedom of navigation on the high seas for commercial shipping, specifically to ensure the continuation of extremely lucrative maritime trade in time of war.3 The debate over the importance of the freedom to continue trading activities at sea during war became politically significant, not least in Britain, the pre-eminent naval and maritime trading power, where commercial trading interests outmaneuvered the naval lobby in influencing diplomatic negotiations to do with the regulation of warfare at sea. While trading interests invariably sought to protect freedom of movement on the high seas, naval interests were more concerned with the purposes of naval warfare, which included

applying economic pressure on opposing belligerents through the interdiction of their maritime trade (including that carried in neutral shipping). Even with the acknowledgement of neutral rights, economic warfare at sea necessitated a certain amount of navigational disruption that threatened commercial interests in general. As a consequence, there was significant tension between naval and commercial shipping interests during the period of intense globalization in the late-nineteenth and early-twentieth centuries, and this helped form the political context for pre-First World War developments in the IHL/LOAC applicable at sea. One of those developments was concerned with the legal regulation of the sea mine.

Sea mines are extremely effective sea-denial weapons. Opposing navies in time of conflict are locked in a basic struggle for sea control, the attainment of which allows them to conduct other operations, to project naval power ashore and to interdict enemy trade (the principal ways in which navies bring their influence to bear on the wider conflict). They achieve sea-control for themselves through operations that deny it to their opponents. Sea-denial weapons have become especially important in modern naval warfare through technological developments since the nineteenth century, reducing, though by no means eliminating, the need for major set-piece battles between opposing surface forces. Submarines, maritime airpower and shore-based missiles all pose significant threats to surface naval forces. Prior to their arrival as a factor in naval warfare, however, came the sea mine.

Naval forces are extremely vulnerable to damage from mines and no responsible naval commander will willingly take his force into waters where they are known to have been laid without first deploying countermeasures. Relatively small numbers of mines can seriously curtail the operations of a large and otherwise powerful naval force. Sea mines have notable asymmetric effects.

Of course, mines are not merely sea-denial weapons causing problems for opposing navies. They are also an excellent means of disrupting an enemy’s maritime trading activities, including preventing merchant shipping entering an enemy’s ports. Indeed, as shall be seen, it was this use that was the most significant during the two major naval wars of the twentieth cen-

4. For recent and important works on this subject, see NICHOLAS A. LAMBERT, PLANNING ARMAGEDDON: BRITISH ECONOMIC WARFARE AND THE FIRST WORLD WAR (2012); JAN M. LEMNITZER, POWER, LAW AND THE END OF PRIVATEERING (2014); STEPHEN COBB, PREPARING FOR BLOCKADE 1885–1914: NAVAL CONTINGENCY FOR ECONOMIC WARFARE (2013).
tury. They can also be used defensively to deny access to a belligerent’s (or a neutral’s) coast and ports by the naval forces of the enemy, as well as in a protective sense to secure shipping routes by preventing both enemy surface ships and submarines using those waters.\(^5\)

Perhaps surprisingly, the only treaty to date dealing with the regulation of sea mines is now over a century old. The 1907 Hague Convention VIII Relative to the Laying of Automatic Submarine Contact Mines\(^6\) was aimed at regulating a weapon that seriously threatened both major surface warships and merchant ships. It was a response to the then available technology, principally mines triggered by direct contact with the hull of a ship. Automatic submarine contact mines were—and remain—relatively simple devices. Even today, while there are certainly far more sophisticated mines capable of being targeted at specific types of vessel—or even individual ships—through their reaction to such influences as pressure, sound and magnetic signature, a substantial proportion of sea mines are still triggered by contact. So, although over a century old, the Convention governs a weapon still in broad circulation and still a significant asymmetric threat to all maritime forces, including blue water navies.\(^7\)

The aim of this paper, therefore, is to assess the 1907 Convention from a twenty-first century perspective. I start with background briefs on the historical context (both developments in sea mines prior to 1907 and the wider backdrop to the conference in The Hague), which leads into a description of the content of the 1907 Convention, followed by an account of relevant practice and other developments since 1907.

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5. See the discussion in **San Remo Manual on International Law Applicable to Armed Conflicts at Sea** 169–70 (Louise Doswald Beck ed., 1995). The **San Remo Manual** is an important document in relation to the law regulating sea mines and it will be the focus of specific comment below.


II. THE DEVELOPMENT OF SEA MINES PRIOR TO 1907

Sea mines were probably first used during the siege of Antwerp in 1584–85, but it took almost another two hundred years for any serious development of this means of warfare. The release of floating kegs of explosives upstream of British naval vessels in the Delaware River was proposed by David Bushnell during the American War of Independence (1775–82). They proved to be largely unsuccessful on that occasion due to the vigilance of lookouts on the British ships. Another American, Robert Fulton, tried to convince both the French and the British during the Revolutionary and Napoleonic Wars (1793–15) that their opponent’s ships could be sunk using towed explosives. Neither side took his idea up, however, apparently because each regarded sea mines as a barbaric and unethical means of warfare.

These first attempts to develop weapons that would damage the hulls of enemy ships produced devices whose operation was more akin to what are now referred to as “torpedoes” and, indeed, that term rather than “mines” was often used to describe them. The first use of a weapon similar to what would now be described as a sea mine occurred during the Crimean War (1853–56), when the Russians used them as a means of harbor defense in both the Baltic and the Black Sea. Designed by Moritz von Jacobi and Immanuel Nobel (father of Alfred), they were triggered automatically on contact with a ship’s hull by means of a chemical fuse. They were not a great success in terms of their explosive effect. One exploded under the

8. No original research has been undertaken to inform the account of the historical development of sea mines that follows. Rather, the account relies heavily on two works in particular that are arguably essential references for the entire discussion of sea mines: HOWARD S. LEVIE, MINE WARFARE AT SEA (1992) and JAMES J. BUSUTTIL, NAVAL WEAPON SYSTEMS AND THE CONTEMPORARY LAW OF WAR 12–100 (1998). Additional references are the useful commentaries included in the two relevant collections of documents: DOCUMENTS ON THE LAWS OF WAR 103–4 (Adam Roberts & Richard Guelff eds., 3d ed. 2000) and Howard S. Levie, Commentary, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES 140 (Natalino Ronzitti ed., 1988). Unless quoting directly from these sources, in order to reduce the number of footnotes no repeated reference will be made to them hereafter in discussions of historical developments.

9. It is interesting to note this Napoleonic era concern with humanity in the conduct of war, predating the formal introduction and development of what is now recognized as weapons law by half a century—or even a full century if the Hague conferences in 1899 and 1907 are regarded as the true birth of IHL/LOAC weapons law.
British warship *HMS Merlin*, but did not do any real damage. The first ship to be sunk by a naval mine was the *USS Cairo*, sunk on the Yazoo River in Mississippi in 1862 during the American Civil War. That mine was not activated by contact with the ship’s hull, but by a command wire arrangement operated from the shore. That arrangement certainly meant that that particular mine was capable of discrimination in targeting. The contact mine, however, was inherently indiscriminate in its effect, being unable to distinguish between warships and merchant vessels. By design, therefore, it represented a profound threat to free navigation, including on the high seas and, if laid in significant numbers and in wide areas, had the potential seriously to undermine maritime commercial trade. For that reason, influential trading interests would be in favor of banning or greatly restricting its use. At the same time, States began to consider regulation for entirely pragmatic reasons based on national interests. Since mines were also capable of inflicting serious and widespread injury to those serving in the ships that fell victim to them, there was an additional idealistic/humanitarian rationale for limiting their use.

III. The Historical Context for 1907 Hague

By the end of the nineteenth century, idealistic and pragmatic tendencies influencing the developing IHL/LOAC had begun to coalesce. In 1899, through the personal initiative of Tsar Nicholas II of Russia, a conference was convened in The Hague, the principle purpose of which was to limit armaments. It resulted in three conventions and three weapons-related declarations. Only one of these documents was directly related to naval war (1899 Hague Convention III, which extended the provisions of the 1864 Geneva Convention to war at sea). The priority at that point was regulating war on land.

Wars between great powers during the nineteenth century had been many and varied (contrary to the modern myth that Europe was relatively peaceful).
 peaceful from the end of the Napoleonic Wars to the outbreak of the Great War in 1914). They had also frequently included naval engagements. What there had not been, however, was a general great power war of sufficient intensity and duration that naval war in all its manifestations had become a decisively significant part of it. There had been no major and sustained confrontations between great power navies since the early nineteenth century.

General, multinational great power wars have been the engines of change for many international developments in the modern era. Their absence, and the limited nature of the naval campaigns during the lesser great power wars that were fought in the decades following 1815, meant both a paucity of sufficient State practice to generate shifts in the customary law of naval war, and a lack of a motive born of experience to generate positive change through the development of treaty law. It should be no surprise, therefore, that the 1899 Hague Conference devoted so little time to naval issues.

That conference was to have been the first of a series of peace conferences. While the second conference met in 1907, the next, envisaged for 1914 or 1915, was not convened because of the outbreak of war between the European great powers. In fact, the 1907 Hague Conference had anticipated such a war and, importantly, had also expected it to involve a major naval confrontation. There were two reasons for this. First, in between the first and second conferences, there occurred a substantial war between two major powers that had a significant naval dimension. Second, there was a growing expectation that the next great power war involving European powers had the potential to feature a major naval war because of the naval arms race between Britain and Germany and the notable rise in naval capabilities generally.

Significantly, the Russo-Japanese War of 1904–5 had a substantial maritime dimension, most strikingly leading to the deployment of a Russian fleet from the Baltic to the Far East, where it was famously defeated at the Battle of Tsushima by the Imperial Japanese Navy commanded by Admiral

14. There were fourteen wars involving great powers in Europe between 1815 and 1914. See Sandra Halperin, War and Social Change in Modern Europe: The Great Transformation Revisited 6 (2004). It is arguably the case that those who were alive in 1914 were somewhat less surprised by the outbreak of war that summer than some eminent historians writing about the subject a century after (although the former would have been greatly surprised by its duration and effects).
Togo Heihachiro. The war sent shockwaves through the international system at the time, not least because it resulted in an Asian power defeating a European great power. It understandably raised the profile of naval war considerably. When coupled with the growing Anglo-German naval antagonism marked by an intense naval arms race, naval war was placed firmly on the international diplomatic agenda.

The Russo-Japanese War’s most notable naval engagement undoubtedly the Battle of Tsushima, the most significant fleet engagement since Trafalgar, exactly a century earlier. The bulk of the Russian fleet that fought in that battle had sailed halfway around the world to do so. It was deployed for that purpose as a reaction to the sinking off Port Arthur on March 31, 1904 of the Russian flagship, the Petropavlovsk, which also resulted in the death of Admiral Stepan Osipovich Makarov, the charismatic, courageous and immensely popular commander of Russian naval forces in the region, whose decapitated body went down with his flagship. Petropavlovsk was not the victim of conventional ship-to-ship combat—it had been struck by a Japanese automatic submarine contact mine. The German Kaiser wrote to Tsar Nicholas to express his “sincerest and heartfelt sympathy to you at the loss of so brave an admiral, who was personally well known to me—and so many brave sailors.” Masses were celebrated to the memory of Makarov across the Russian Empire. Sea mines were not getting a positive press in Russia. Elsewhere, those States with substantial surface fleets were awakened to the potential destructive impact of the weapon and the vulnerability of the substantial investment their fleets of warships, in particular the considerable number of “dreadnought” battleships, represented.

Throughout the war, mines were laid by and affected both belligerents. The Russians laid a minefield off Port Arthur which cost the Japanese two of their battleships, four cruisers, two destroyers and a torpedo boat. At the same time, merchant shipping was being disrupted, with mines seriously impeding their free navigation. This caused the British—and other neu-

15. For a recent study of naval aspects of this war, see CONSTANTIVE PLESHAKOV, THE TSAR’S LAST ARMADA: THE EPIC VOYAGE TO THE BATTLE OF TSUSHIMA (2002).
17. PLESHAKOV, supra note 15, at 34.
trials—considerable concern, with commercial trading interests bringing their influence to bear on the British government’s policy as the second Hague Conference approached. That 1907 conference came to be heavily focused on maritime concerns. Of the total of fourteen conventions produced at the conference, nine were devoted to aspects of war at sea. The eighth was that dealing with automatic submarine contact mines, the type of mine that had caused substantial damage to both sides during the Russo-Japanese War.

So, by 1907, sea mines had become a focus of serious concern and attention. Commercial trading interests tended to want them banned altogether, while naval interests wanted them regulated, but also saw the value of them as sea-denial weapons and as a means of disrupting enemy trade. Commercial interests in Britain were influential and attempted to persuade the government to overrule naval opinion and to push for an outright ban. The Royal Navy’s influence was not inconsequential, however. The British position evolved to favor tight restrictions on mining activity, but there was no attempt to arrive at an outright ban, not least because this was never likely to be achieved during treaty negotiations. The most predictable outcome of the 1907 Conference would be a balanced agreement, regulating the use of potentially indiscriminate sea mines, but certainly not banning them altogether.

IV. THE PROVISIONS OF 1907 HAGUE CONVENTION VIII

The 1907 Convention consists of a preamble and a total of thirteen articles. Only the first five articles posit the rules governing the characteristics of those mines permitted and the ways in which they should be used; all five will be considered. Article 6 covers action to deal with those existing mines that were contrary to the Convention (this will not be considered in detail here, given its limited relevance today). Article 7, which covers the Convention’s application (restricting it to situations in which all belligerents are party), will also be examined. Articles 8 through 13 will not be commented upon as they deal with ratification and other procedural matters. In discussing each of the relevant articles, no detailed account is given of the travaux 18.

18. This and follow-on developments in the law governing naval operations was reflected subsequently, for example, in debate between Royal Navy officers in the pages of their professional journal, *The Naval Review*. See Steven Haines, *Law, War and the Conduct of Naval Operations*, in *Dreadnought to Daring: 100 Years of Comment, Controversy and Debate in the Naval Review* 299, 301–3 (Peter Hore ed., 2012).
préparatoires. Levie has already adequately discussed the drafting process for each of these articles and it is not considered necessary to repeat his accounts or explanations in what follows below.  

A. Preamble

It is worth considering the Preamble as it makes a number of important points as to the purpose of the Convention, raising questions as a result. The Preamble made it very clear it was inspired by the desire to keep sea routes open for some navigation, while going on to stress that it was about regulating rather than banning the use of automatic submarine contact mines.

Both the title of the 1907 Convention and the Preamble refer to “automatic submarine contact mines.” The operative articles omit the word “submarine” when referring to the mines that are the focus of the text. There is a simple reason for this. If a moored mine slips its mooring it will float to the surface. A moored mine’s normal location in the water column will be below the surface at a depth that will lead to contact with a passing ship’s hull. It will not be visible, reducing the chances of a target vessel avoiding it, but will remain effective in achieving the necessary contact with the vessel. Indeed, the moored mine will also ensure that the target vessel is holed below the waterline. The 1907 Convention clearly needed to cover the possibility of moored mines floating to the surface, however, hence the operative articles omitting the word “submarine.”

By defining the type of mine covered by the 1907 Convention, it did not apply to sea mines in general. As Busutill has pointed out, “the spherical, ‘horned’ contact mine [is] triggered by the contact of a passing ship against one of the ‘Hertz’ horns . . . [the] type of mine to which Hague Convention VIII is addressed.” As noted above in the discussion of the historical background, there were other mines in existence that were triggered in other ways than by contact; they were excluded from consideration. This is an important point to acknowledge, because, if the Convention agreed in 1907 had covered all devices then capable of being described as sea mines, this would have given some credence to the view that it covered all forms of sea mines subsequently developed. As influence mine technologies advanced in subsequent years, the 1907 Convention would

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19. See the relevant sections in LEVIE, MINE WARFARE AT SEA, supra note 8, at 27–50.
20. BUSUTTIL, supra note 8, at 15–16.
have also applied to them. By dealing very specifically with contact mines and excluding other mines that then existed, however, the Convention is arguably not extendable to other, subsequent, mines utilizing newer technologies. This is not, however, uncontentious. While Kalshoven believed that the wording of the 1907 Convention effectively excluded other mines, O’Connell in contrast suggested that, despite the wording of the rules agreed in 1907, “it does not mean that the principle behind them is irrelevant . . . . [it] has rigidified in recent times so as to encompass the influence as well as the anchored contact mine.”

This clearly raises questions as to how customary law has developed since 1907, an issue to which I return briefly below when discussing Article 1 of the Convention.

The compromise articulated within the Preamble recognized the impossibility of obtaining a total ban on automatic submarine contact mines, while acknowledging the vital importance of using mines in a way that did not have a profound adverse effect on “peaceful navigation” along the principal trading routes. Such navigation was not defined in the Convention, however—did it allude merely to that by neutral vessels or also to belligerent vessels carrying non-contraband cargo? This question was not answered. Peaceful navigation was also, arguably, not guaranteed, but was only to be ensured “as far as possible.” The intention of the Convention was stated as being to “mitigate the severity of war” and not to eradicate mining altogether in such a way as to ensure freedom of navigation at the expense of belligerents’ rights to conduct hostilities at sea.

Compromises, by definition, will never entirely satisfy all concerned. Britain, prompted by its influential trading interests, eventually and predictably had to agree to less regulation than it would have liked, but stated in a reservation that “the mere fact that this Convention does not prohibit a particular act or proceeding must not be held to debar (Britain) from contesting its legitimacy.”

B. Article 1

To quote Levie, “[Article 1] unquestionably contains the most important provisions of the Convention and the only ones that place any real restrictions on the use of mines by belligerents as an incident of maritime

21. FRITS KALSHOVEN, CONSTRAINTS ON THE WAGING OF WAR (1987); 2 D. P. O’CONNELL, THE INTERNATIONAL LAW OF THE SEA 1138 (Ivan A. Shearer ed., 1984); both quoted in BUSUTTIL, supra note 8, at 63–64.

22. THE LAW OF NAVAL WARFARE, supra note 8, at 132.
The article is divided into three paragraphs. The first forbids the laying of unanchored automatic contact mines unless they are constructed in such a way that they become harmless within an hour after the person laying them ceases to control them. The second forbids the laying of anchored automatic contact mines unless they become harmless as soon as they break loose from their moorings. The final paragraph forbids the use of torpedoes that do not become harmless when they have “missed their mark.”

The first paragraph is effectively acknowledging the existence and utility of a form of defensive mine designed to be released from a ship being pursued by an enemy warship, the intention being that the mine would float into the path of the pursuing warship and cause it either to end its pursuit or to be damaged when it came into contact with the mine. The U.S. Navy has referred to these as “drifting mines” and itself developed six types between 1915 and 1925 (and a further Mark 7 during the Second World War), for example. Although these sorts of mines were usually launched from the deck of the pursued vessel, they could be towed behind it, ready to be slipped free to float into the path of a pursuing enemy warship when required. Such mines could well be in the water under tow for extended periods while remaining under the control of the vessel launching them. Once launched/slipped they became free floating. They needed to be active to achieve their purpose, but that was clearly time limited. The limit of one hour was regarded as adequate for the intended purpose and tactical deployment of the weapon. After that time had elapsed, the mine needed to become harmless, however, otherwise it would become a threat to shipping generally (thereby defeating the 1907 Convention’s declared object).

Arguably, this particular provision is now largely overtaken by events as these sorts of mines are generally a thing of the past. Nevertheless, the provision remains and should not be dismissed as entirely irrelevant for the simple reason that it is feasible that such a weapon might be created in the future. If it is, then this provision may need to be complied with (subject to the applicability of the treaty law or its reflection in customary law). One can envisage circumstances in which a navy may develop such a device or the ship’s company of an individual ship might extemporize during a low-intensity coastal conflict, for example. Combatants often resort to battle-

23. LEVIE, MINE WARFARE AT SEA, supra note 8, at 31.
field “invention” to respond to particular tactical threats. In Afghanistan, for example, junior combatants are known to have weaponized otherwise benign remote-controlled vehicles in order to cope with particular tactical challenges, quite unaware of the need to ensure that the legality of such weapons needs to be confirmed through legal review.\textsuperscript{25}

In relation to all three types of weapon described in Article 1, there is the requirement that they “become harmless.” What is meant by this phrase? Busuttil has identified three possibilities, indicating that a mine free floating for more than an hour, one that breaks its mooring or a torpedo missing its target, should be designed to either self-destruct, disarm or sink to the seabed. The last of these is perhaps the least satisfactory because an armed device lying on the seabed will not be absolutely harmless (it might be drawn into the bottom trawl of a passing fishing vessel or be activated by a bottoming submarine, for example). Other types of mines are designed to lay on the seabed and remain intentionally active. That being the case, while a contact mine sinking to the seabed to become “harmless” might be the least satisfactory option identified by Busuttil, it perhaps remains an acceptable way of complying with the 1907 Convention.

On the other hand, if “to become harmless” means either to self-destruct or to disarm, rather than simply sink, this would add credence to the view that the 1907 Convention only applies to contact mines, with influence mines lying on the seabed not affected. The development of influence mines post-dated the Convention. It is a feature of their mode of operation that influence mines either rest on the seabed (ground mines) or they sit in position within the water column, held in place by a mooring line that is anchored to the seabed. Whether they are ground or moored influence mines, they remain in position to await the arrival of whatever vessel has the required signature to trigger them. In the practical sense, ground mines do not need to be physically anchored in place on the seabed. They do, however, tend to be restricted in their use to shallower water than moored mines (sixty meters—or two-hundred feet—being about the limit for ground mines). If the 1907 Convention was to apply to influence mines, then they would obviously all need to be anchored, or be obliged to become harmless one hour after deployment, which would make deploying them largely pointless.

\textsuperscript{25} Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts art. 36, June 8, 1977, 1125 U.N.T.S. 3. Such battlefield extemporization was revealed to the author in discussion with a former British commander of forces deployed in Helmand Province in Afghanistan.
Dinstein has argued that there are no reasons why the Convention should not apply to influence mines as well; indeed, he states that this is what the rule “must” mean. While that proposition might at first not sound unreasonable, it is unfortunately problematic. An inevitable consequence would be that, to be lawful, all influence ground mines would, once deployed, have to be physically held in position by some form of anchoring. Many are not; they are not designed to be and it would be virtually impossible to modify existing mines and their manner of deployment to render them compliant with the 1907 Convention. The anchoring of ground mines has never been formally agreed. It cannot here be regarded as a customary requirement since no evidence is available to demonstrate that any State deploying such mines has ever done so in the belief that there is a legal obligation to have them anchored to the seabed. There is neither the practice nor the _opinio juris_ to establish a customary norm. Indeed, if anything, practice indicates the opposite. The conclusion one is drawn to is that the 1907 Convention does not apply to mines other than those contact mines to which it specifically refers.

C. Article 2

Article 2 of the 1907 Convention forbids the laying of “automatic contact mines off the coast and ports of the enemy, with the sole object of intercepting commercial shipping.” This article is somewhat ambiguous in relation to both the location of legitimate minelaying and the extent to which it is allowed for purposes additional to the interception of commercial shipping. Instinctively, it seems to mean a blockade should not be enforced by the use of mines—until one deconstructs the wording. Is mining forbidden in ports and inland waters? Is it restricted by the use of the phrase “off the coast” to the territorial waters of the enemy, or might a minefield laid in these circumstances extend into the high seas? What about the use of mines in international straits in which the territorial seas of opposing belligerents meet and in which mining activities could render such straits impassable? On this latter point, the conference made a conscious decision not to address the issue because the majority of States believed they had no mandate to do so. Mining certainly occurred in ports and inland waters

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prior to 1907, but it also continued after that date. It is impossible to reach a clear and uncontroversial conclusion to the questions raised by the wording in the article if one is concerned merely with the location of a minefield. The wording relating to location must be read along with the intended purpose of the mining that is forbidden.

Even then, however, the article is unsatisfactory. It seems that all a belligerent laying the mines needs to do is assert that the minefield’s purpose is not exclusively to intercept commercial shipping. By stating that the minefield is also—or primarily—about denying access to enemy warships, for example, the mining would not be contrary to the wording of the article. One could go even further. How should the phrase “commercial shipping” be interpreted? Elsewhere in the Convention reference is made to “peaceful shipping,” a phrase as already noted, is itself subject to some interpretation. Is the absence of the word “blockade” in this article of any significance (especially given the implication to be drawn from it)? Does “commercial shipping” mean all shipping, including neutral shipping and belligerent commercial shipping not carrying contraband? Would belligerent merchant ships not carrying contraband, especially when sailing in escorted convoys, represent something other than the “commercial shipping” covered by the wording of the article? One could go on posing questions of this sort. Essentially, this article, the meaning of which seems quite straightforward on first reading, is shot through with ambiguity and is profoundly unsatisfactory. Both Levie and Busuttil have discussed this problem in some detail. One is attracted to Busuttil’s conclusion, that the 1907 Convention

therefore forbids the laying of automatic contact mines in the internal waters and territorial sea, and on the high seas opposite the coasts and ports of an enemy to a reasonable distance, if the State doing so has as its only intent the cutting off of all commercial shipping, broadly understood. The mining of the ports themselves or the inland waterways of an enemy to carry out any intent is not forbidden by the Convention.28

Given the ease with which a belligerent could assert purposes other than the interdiction of commercial shipping as the reasoning behind its minelaying activities, the restrictions contained in this article are virtually meaningless in any practical sense.

28. BUSUTTIL, supra note 8, at 25.
D. Article 3

Article 3 establishes an obligation on those laying mines to take “every possible precaution . . . for the safety of peaceful shipping.” It then goes on to place on belligerents an obligation to “do their utmost to render [the] mines harmless within a limited time, and, should they cease to be under surveillance, to notify the danger zones” to ship owners and other governments.

Aside from the issues already discussed about what is and what is not “peaceful shipping,” there is a question raised by the use of the two different phrases “every possible precaution” and “do their utmost.” As Busuttil has illustrated very well, such terminology can be the subject of different interpretations. It must be said, however, that it is quite possible to become far too obsessed with deconstructing phrases of this sort and arriving at subtly different meanings, the fact that both have been used in the same article doing nothing to stem the tendency to assume they indeed mean different things. As Levie has noted, when regarded together with the phrase “as soon as military exigencies permit,” one is left with an article that is notable for its inherent flexibility, not a precise statement of clear obligations. Nevertheless, all such phrases do tend to provide belligerents laying minefields with ample opportunity either to avoid strict compliance or to delay it, which is unfortunate in a treaty.

There is not much more that can usefully be said about this collection of phrases. Their interpretations will, inevitably, be left to those laying mines, with the precise meaning of “every possible precaution,” “do their utmost” and “as soon as military contingencies permit” being left to their judgment, be it good or otherwise. Ultimately, of course, a court or tribunal may have to reach its own conclusions against a set of pertinent facts, but that has yet to happen and is not currently in prospect. One suspects that as long as the existence of minefields is notified through such media as Notices to Mariners and diplomatic communications (including today by informing the International Maritime Organization, the relevant UN specialized agency), identifying whether all other conditions have been adequately met will be problematic. In that sense, the article is flawed, although it is so because, of course, of the need to arrive at a text acceptable to those attending the Hague Conference in 1907.

Before leaving this article, there is one further comment that ought to be made. There is a requirement for belligerents to “render these mines harmless within a limited time.” What is not articulated is any sense of pre-
cision as to what the word “limited” means. Mischievously, it might be interpreted as setting a timeframe of one-hundred years—which would still be limited, strictly speaking. One should not be deliberately facetious. It is more than likely that such a period would be regarded as excessive. What exactly is meant, though, by this requirement of Article 3? One might be forgiven for assuming that “limited” suggests a matter of days or possibly even weeks; for most, it would certainly not suggest a number of years. Yet, minefields have frequently been laid for effect over extended periods, especially in the sorts of general naval wars in which the bulk of such mines have been used (the First and Second World Wars). Perhaps in the context of 1907 and the then recent experience of naval war between Russia and Japan, it was not unreasonable to measure timeframes in weeks or months rather than years. Subsequent twentieth century experience has provided clear evidence that time limits are almost invariably impossible to set—they are, after all, subject to military exigencies.

E. Article 4

Article 4 imposes obligations on neutral powers similar to those imposed on belligerents in relation to the deployment of mines. There is one important difference. Whereas Article 3 requires the laying of mines to be notified to ship owners and other States at some point after the mines are laid (defined as being “as soon as military exigencies permit” after the laid mines cease being under “surveillance”), Article 4 requires neutrals to inform ship owners and States prior to minelaying operations being conducted. The difference between these requirements to inform is understandable. A belligerent laying mines will seek to conduct such operations unopposed and will not, therefore, wish to inform the enemy of its intentions, whereas a neutral laying mines for the security of its own waters will have no such need and, indeed, will probably seek to give significant publicity to its minelaying activities. Again, although the article does not stipulate precisely how this should be done, in practical terms the formal method of communicating the location of mines will be by a combination of Notices to Mariners and diplomatic channels (informally, of course, in the current age of global communication and media activity, the information is likely to be readily available to all concerned in very short order).
F. Article 5

Article 5 turns to the subject of mine clearance “at the close of the war,” but does so in what appears to be a potentially confusing manner. There are two sentences in the article. The first declares that States are “to do their utmost to remove the mines that they have laid, each Power removing its own mines.” The second, seemingly contradictory, sentence goes on to say that in relation to mines laid by a belligerent “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.” So, on the one hand the 1907 Convention requires States to clear their own mines while, on the other, it requires them to clear the mines present in their own waters. What is to be made of this?

Before dealing with the apparently contradictory content, something needs to be said about when this article actually applies. This is of some importance as it requires States to take mine clearance action “with the least possible delay.” In order to know when mine clearance operations should commence—or subsequently to judge the measure of any delay in their conduct—one would surely need to have some idea when the moment of obligation had arrived. The article states that this moment is “the close of the war,” but what, precisely, does that mean? The Convention does not elaborate. Notwithstanding the fact that since the middle of the twentieth century the term “armed conflict” has been preferred in legal parlance to “war” (though the two terms are not precisely synonymous), the phrase could be interpreted as either the suspension of hostilities through some form of ceasefire (though presumably a general one and not merely a temporary or local arrangement), the achievement of an armistice agreement, or even the ultimate formal termination of war arrived at through the signing of a treaty of peace.29 The latter could take, literally, years. The mere suspension of hostilities, however, will not guarantee the end of further resort to force, and mine clearance under those circumstances could well be premature. Busuttil analyses this issue (and much of the 1907 Convention’s meaning) by reference to the authentic French text.30 Unfortunately, his conclusions do not finally resolve the dilemma. In


30. BUSUTTIL, supra note 8, at 72.
the San Remo Manual the chosen terminology is “after the cessation of active hostilities,” reflecting Article 118 of 1949 Geneva Convention III\textsuperscript{31} and Article 33 of 1977 Additional Protocol I.\textsuperscript{32} One needs perhaps to accept that the precise moment critique defies clear definition, but that it will eventually emerge and become clear to all sides. After that point, mine clearance should certainly proceed “with the least possible delay.”

Turning now to the question of which State should remove which mines, although the two sentences in the article appear contradictory, they are not absolutely so. One can deduce from a comparison of the two sentences that States have a responsibility to remove those mines they have laid, except for those laid in the waters off the coasts of their enemy. In the same vein as the comments about Article 2, the Convention does not stipulate what is meant by the phrase “off the coast.” To be consistent, I again take what Busuttil has concluded, that this includes the territorial waters of the State, but also the high seas out to a “reasonable distance,” and that there is nothing more that can be said about the geographical extent of the obligation.

Finally, although Article 5 directly applies to belligerents, it indirectly also applies to neutrals who have laid mines off their coasts through the statement in Article 4 that “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.” Essentially neutral States must clear those mines they have laid off their coasts.

\textit{G. Article 6}

Article 6 deals with the arrangements to be taken by newly contracting States whose existing mines could not comply with the provisions of the 1907 Convention. This article is now all but overtaken by events. Theoretically, it would still apply to any States that became party to the Convention in the future. A total of thirty-seven States signed it at The Hague in 1907, although only twenty of those subsequently ratified it to become parties. A further five States acceded to it, the last being Finland, which did so on December 30, 1918. Two further States, Fiji and South Africa, made declarations in 1973 and 1978, respectively, that they consider themselves parties as a consequence of their previous status within the British Empire (Britain

\textsuperscript{31} Convention Relative to the Treatment of Prisoners of War, Aug. 12, 1949, 75 U.N.T.S. 135.

\textsuperscript{32} Supra note 25.
having become a party in 1909). Currently, therefore, there are twenty-seven parties bound by its provisions and eight signatories merely bound not to undermine the purpose of the Convention. With virtually all parties having become so around a century ago and with the two most recent having done so almost four decades ago, one might safely assume that no further States will accede to the Convention, which means that this article almost certainly has no further practical effect.

H. Article 7

Article 7 declares that “the provisions of the . . . Convention do not apply except between contracting Powers, and then only if all belligerents are parties to the Convention.” This is an understandable provision reflecting standard treaty law, especially in relation to a treaty that is not itself a codification of existing custom. While understandable, it has had a remarkable effect. Since 1907 when the Convention was agreed in The Hague, there has been no armed conflict during which it has actually applied. If it has had any effect at all, therefore, it will have done so by virtue of its rules becoming regarded by a number of States as having achieved customary status through a combination of practice and opinio juris since the Convention was agreed. This fact leads neatly to a discussion of practice, especially during the First and Second World Wars and thereafter.

V. State Practice and Sea Mining Since 1907

There have been plenty of wars since 1907 to examine in the search for relevant State practice. Without doubt, the two world wars have been by far the most significant, with the first occurring less than five years after the 1907 Convention came into force in January 1910. Apart from those two

33. One of the early ratifying States was Austria-Hungary (1909) which divided into a number of sovereign States (including the separate States of Austria and Hungary) following the disintegration of the Austro-Hungarian Empire at the end of the First World War. This could raise questions about State succession, although, in effect, neither State is likely to have any involvement in the laying of sea mines as both are now landlocked. The same applies, of course, to other landlocked parties, Luxembourg and Switzerland, both of which became parties (in 1912 and 1910, respectively). Finally, although a further landlocked State signed the Convention (Serbia in 1907), it then failed to ratify. See LAW OF NAVAL WARFARE, supra note 8, at 129–30.

34. Again, the historical detail in what follows relies greatly on the evidence outlined in both LEVIE, MINE WARFARE AT SEA, supra note 8, and BUSUTTIL, supra note 8.
general great power wars, during which mines were used extensively by both belligerents and neutrals, there have been a number of other conflicts that have involved some use of sea mines. It is worth saying something about all of these, which are addressed in the following three sections on the First World War, the Second World War and on conflicts since 1945.

A. The First World War

Mining commenced immediately on the outbreak of hostilities in 1914, with both belligerents and neutrals engaging in the laying of extensive minefields in both coastal zones and across swathes of the high seas. Indeed, as if to signal the profound significance of mine warfare, the very first navy on navy engagement in the war between Britain and Germany was fired on August 5, 1914, the second day of the war, when the German warship SMS Königin Luise was sunk by the British destroyer HMS Lance while the former was engaged in offensive minelaying operations off the ports of Harwich and Lowestoft. The following day the HMS Amphibion, of the 3rd Destroyer Flotilla based in Harwich, struck one of the Königin Luise’s mines thirty-five miles east of Aldeburgh Napes. The one hundred fifty members of her ship’s company lost when the mine exploded, together with an accountant officer killed during the previous day’s encounter between Lance and Königin Luise, were the very first casualties suffered by the British Empire during the First World War.36

While rival belligerents might have been expected to engage in both minelaying activities and the operations to prevent them, neutral States also set about laying defensive minefields around their coasts. Even prior to the engagement between the Königin Luise and the Lance, the Dutch and the Danes, both neutrals, had begun mining the waters in the Baltic and its ap-

35. Paul G. Halpern, A Naval History of World War I 27 (1994) and Len Barnett, A Well Known Incident Reassessed: The German Attempted Mining of the Thames in August 1914, 89 THE MARINER’S MIRROR 185–202 (2003). I had thought this incident was the first shot fired in the naval war. That, however, occurred on the opposite side of the world a few hours before when the Royal Australian Navy fired at a German merchant ship trying to exit Port Phillip Bay. That resulted in the RAN seizing a copy of the German cipher which proved very useful as a key to what the High Seas Fleet was up to in the North Sea (I am most grateful to Rear Admiral James Goldrick RAN for pointing this out to me).

proaches on August 1 and 4, respectively. Further neutral mining was con-
ducted in the opening weeks of the war by the Ottoman Empire (which
subsequently entered the war as a belligerent). From late September on-
wards, it laid mines in the waters off its coast in the eastern Mediterranean.
From then on, mining by most belligerents and significant neutrals re-
maind a major feature of the naval war until hostilities ceased in late 1918.

Extensive minefields were laid by the belligerents, with claims and
counterclaims as to their legality under the 1907 Convention. This was de-
spite the fact that, according to Article 7, it did not formally apply because
not all belligerents were party. Approximately a quarter of a million mines
were laid in total during the war by belligerents and neutrals alike. Perhaps
the most extensive minefield was that laid by the British in the North Sea
aimed at preventing German submarines transiting from their base ports
into the Atlantic, where their purpose was principally to sink Allied ship-
ning. A particular criticism was the indiscriminate nature of mining activi-
ties by belligerents. Claims to that effect were followed by assertions that
responsive mining activity was merely in the nature of reprisal for the op-
posing belligerent’s indiscriminate mining that preceded it.

In all of this, the general purpose of the 1907 Convention appeared to
have been roundly defeated. It was not ignored entirely, however. Apart
from occasional references to it, with claims made by both sides that op-
posing belligerents were in breach, there were hints that its detailed provi-
sions relating to the types of mines permitted and the manner of their de-
ployment were gaining at least some traction. There were demands, for ex-
ample, that moored mines should become harmless on slipping their moo-
rings and the United States, in February 1915 (when it was still neutral),
urged belligerents not to lay any floating mines on either the high seas or in
territorial waters.

Perhaps the most obvious and important point to make about the use
of sea mines subsequent to the coming into force of the 1907 Convention
is that the desire of commercial shipping interests to limit the use of min-
ing and to ensure that trading routes remained open and safe during hostili-
ties at sea was confounded. The use of mines during the Russo-Japanese
War had given some hint as to their potential significantly to affect mar-
time trade and the general conduct of war at sea. Experience of mining
then was, however, nothing like as intense as that during the years of major
naval war in the decade following the negotiation and coming into force of
the Convention. It should be remembered that the outbreak of the First
World War effectively brought to an end the first major period of globali-
ization. It massively disrupted trade and the sea mine was one of the main reasons. Here was confirmation, if it were needed, that commercial trading interests in the latter years of the nineteenth century and the opening years of the twentieth were absolutely correct in their understanding of the potential that mines had to disrupt their activities. The fact that mining had this effect also, of course, proved to naval authorities that they were similarly correct in their assumptions about the belligerent utility of the weapon.

For the overall effect and the extent to which mining practice developed during the First World War, one can do no better than quote Busuttil’s conclusions:

Naval mines were used by all belligerents and many neutrals; minefields were used to isolate the enemy by cutting off ocean borne supplies; minefields were laid to control and regulate neutral shipping; any type of ship, neutral, convoyed or otherwise, that entered the minefields was liable to be sunk; the mined danger zones were usually notified so that ships could avoid them, although the danger zones were often described in a general way; and the protests and counter-protests concerning mining diminished with time and appeared to be no impediment to the proliferation of naval mines and the destruction of shipping which the mines caused.37

B. The Second World War

While the Second World War is generally regarded as having opened with the German invasion of Poland in September 1939, some historians regard it as having started earlier with such precursor conflicts as the Japanese invasion of Manchuria in 1931 or the Italian invasion of Abyssinia in 1935. Although neither of these involved naval mine warfare, one precursor conflict that did was the Spanish Civil War (1936–39), which was particularly notable for the intervention by Germany on the side of Nationalist forces. Its involvement included the use of submarines to lay mines off the Spanish coast to prevent support for Republican forces arriving by sea. While the effect was not profound (only five merchant ships were hit by mines), minelaying by submarines in that civil war represented the first of three significant innovations in mine warfare that were to feature greatly during

37. BUSUTTIL, supra note 8, at 33.
the global war that followed. The other two were the laying of mines by aircraft and the deployment of influence mines, including magnetic, acoustic and pressure mines.

The method used to lay mines is of absolutely no significance in the context of the 1907 Convention; the fact that a mine is laid by a submarine or by an aircraft does not mean that it is not covered by the Convention’s provisions. In contrast, the development and introduction of influence mines is of some significance, if only in the negative sense. As is argued above, the 1907 Convention, strictly speaking, excludes consideration of anything other than contact mines, which means that a considerable number of those mines deployed during the Second World War would not appear to be regulated by it. While that is acknowledged, it should not be assumed that the Convention was necessarily irrelevant in all senses with respect to them (something to be returned to below).

As in the First World War, minelaying commenced immediately after war broke out in September 1939, with both Germany and Britain laying extensive minefields (using both contact and influence mines). The German naval Commander in Chief, Admiral Raeder, announced that the laying of mines had been conducted strictly within the provisions of the 1907 Convention, in particular pointing out that, because Britain had decided to place its merchant ships in convoy under the protection of warships, commercial trading routes into British ports no longer existed, and that the Article 2 ban on the use of mines solely for the purpose of intercepting commercial shipping had not, therefore, been breached.

Both sides gave notification of their mining activities. Indeed, in December of that year Britain announced its intention to lay further fields in the North Sea, an advance notification not required by the terms of the Convention. Further mining and associated notifications followed. In August 1940, Germany went so far as to announce a total blockade of the British coast, stating that the whole sea area around the British Isles had been mined. It would seem that the 1907 Convention’s requirement to notify was being honored (regardless of the types of mines laid); presumably with both belligerents accepting that, as mutual parties, they would choose to comply with its provisions on notification. One notable breach of the law, however, was that committed by the British when they mined Norwe-

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38. Although there had been rumors that submarines were used to lay mines during the First World War.
gian territorial waters on April 8, 1940, four days before the German invasion on April 12 (up until which Norway had remained a neutral). 39

Mines were not laid only at sea (either on the high seas or in territorial waters). In May 1940, for example, Churchill authorized Operation Royal Marine to close the Rhine to river traffic. A total of 1,184 mines were dropped into the Rhine and a further three hundred sixty into the Moselle by the Royal Air Force. By the first week in June 1940 it was reported to Churchill that aerial reconnaissance had shown that traffic from Karlsruhe to Mainz had been “totally suspended.” 40

Following the attack on Pearl Harbor and the outbreak of war between the United States and Japan, mines were laid extensively by the United States in the Pacific theater throughout the period of hostilities to 1945. They were laid by aircraft, submarines and surface ships to block approximately one hundred fifty enemy ports and harbors. This included, from March 1945, the implementation of Operation Starvation, which involved the aerial laying of approximately twelve thousand mines in Japanese harbors with the clear intention of driving Japan to capitulation by starving it of the resources necessary to continue the war.

In all there were probably as many as a million sea mines laid during the Second World War. Estimates of the damage they caused are very rough, principally because it was often unclear whether shipping casualties were the result of attacks by submarines or by contact with mines. Despite this factor making it difficult to arrive at reliable figures for mine casualties, there is no denying that mines had great effect. Allied ships sunk by mines were estimated to number in the order of between three and five hundred; Axis casualties were probably over two thousand five hundred. Again, it is useful to turn to Busuttil for his observations on mine warfare during the war:

First, there was only a minimal replay of the protests and counter-protests at mining seen during World War I. Second, mining was primarily directed at the destruction of the commercial and industrial infrastructure of the enemy. Third, very many mines were sown, at least double and perhaps quadruple the number laid during World War I. Fourth, the ex-

39. Today this would, of course, be a breach of Article 2(4) of the UN Charter, but it is also appropriate to mention in the context of this discussion that it was also contrary to Article 2 of 1907 Hague Convention XIII. Convention No. XIII Concerning the Rights and Duties of Neutral Powers in Naval War, Oct. 18, 1907, 36 Stat. 2415.

licit use of mines to force Japan to capitulation, ‘Operation Starvation’, which very nearly lived up to its name, was not, and to this day has not been, condemned as illegal.41

We can add to this that the presence of minefields was generally notified in a manner accessible to both opposing belligerents and neutrals. As had previously been the case during the First World War, the sheer volume of mines laid in the years 1939–45, together with the geographical extent of minefields both around coasts and on the high seas, leads one inexorably to the conclusion that the early twentieth century attempt to limit mining through the negotiation of the 1907 Convention was an abject failure. Certainly, the purpose of the Convention, as expressed in its Preamble, “to restrict and regulate” mining “to mitigate the severity of war and to ensure . . . to peaceful navigation the security to which it is entitled” seems in retrospect to have been profoundly unrealistic. Arguably, the declared object of the 1907 Convention was defeated in the first few days of the first major naval campaign following its negotiation, and this was repeated just over two decades later in the opening days of the Second World War.

C. Mining Post-1945

There has been no general great power/global war involving sustained and extensive naval operations profoundly affecting maritime trade since 1945. The extensive mining that took place in both the First and Second World Wars has simply not been repeated. When mining has been used by belligerents in the limited wars since then, it has been more to do with sea denial, with their intended effect being on opposing naval forces, rather than about an effective means of conducting economic warfare by attacks on maritime trade.42

This was certainly the case during the Korean War, between 1950 and 1953. Mines were used by North Korea to confound United Nations’ forces with some effect. The invasion of Wonsan, planned for October 1950, was delayed by just over a week because approximately three thousand mines (both contact and influence) had been laid for defensive purposes in Wonsan harbor. Subsequently, Chinese and North Korean forces regularly laid mines, which had the effect of restricting UN coastal operations for

41. BUSUTTIL, supra note 8, at 37.
42. See id. at 38–43.
the rest of the war. Some of those laid were free floating or drifting mines and, therefore, contrary to the terms of the 1907 Convention.

The mining of Haiphong harbor in 1972 during the Vietnam War was with inactive mines sown by aircraft. They were timed to activate after three days, allowing vessels in Haiphong to depart the port during the three days of grace. After the mines became active, no ships either arrived in the port or left it for a total of three hundred days. Although both the Soviet Union and China alleged the mining was illegal, they relied on the 1958 Convention on the High Seas,\(^\text{43}\) and refuted U.S. claims that the mining was defensive and allowed under Article 51 of the UN Charter. The 1907 Convention does not appear to have been referred to by either side. The United States regarded the mining as a successful operation and the peace agreement with North Vietnam followed soon after. Anchored mines that broke free of their moorings duly exploded, in compliance with the 1907 Convention and the United States took action to render unexploded mines harmless after the war ended.

Between 1987 and 1988 both Iran and Iraq laid mines in the Persian Gulf. They were a distinctive feature of the war and they certainly had a disruptive effect on both warships and merchant vessels. Western navies deployed mine countermeasures vessels to clear mines in the Gulf and, by the time of the ceasefire in August 1988, had discovered a total of seven separate minefields and had cleared approximately ninety moored and a similar number of floating mines. Several ships were damaged in the Gulf, including the U.S.-flagged tanker Bridgeton on July 24, 1987 and the USS Samuel B. Roberts in April 1988,\(^\text{44}\) and one tanker hit a mine eighty miles south of the Straits of Hormuz in August 1987. The Iranian landing-craft/minelayer Iran Ajr was attacked and sunk by the U.S. Navy on September 21, 1987 while it was engaged in laying a minefield on the high seas in an area of restricted navigation off Bahrain. The use of unanchored automatic contact mines during this period, including by Iran deliberately placing them in the path of neutral merchant vessels, was clearly a breach of the 1907 Convention.

Following the invasion of Kuwait in 1990, Iraq laid a minefield off the Kuwaiti coast to deter the expected counter-invasion by coalition forces. The field consisted of both contact and influence mines. Several drifting

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\(^{44}\) Following the incident involving the Samuel B. Roberts, the United States launched attacks on Iranian oil platforms in response.
contact mines were encountered by coalition naval forces, although it was not clear whether these had been laid deliberately to drift or had simply slipped their moorings and not disarmed. Either way, the mines breached the 1907 Convention. Two U.S. Navy vessels were struck by mines (the USS Tripoli struck a moored contact mine and the USS Princeton was damaged by an influence mine). After the cessation of hostilities, approximately one thousand three hundred mines (a mix of contact and influence) were cleared, principally by a mine countermeasures force led by the British. The United States also laid mines by aircraft to hamper the operations of the Iraqi Navy.

Other, relatively minor examples, of post-1945 mining operations occurred during the Arab-Israeli Wars of 1967 and 1973, the Indo-Pakistan War of 1971, the Anglo-Argentine War of 1982 and during the very early stages of the Balkan Wars in 1991.

VI. CUSTOMARY LAW AND THE SAN REMO MANUAL

It is the practice outlined above that must lead into some discussion of its effect since 1907, and to whether or not the Convention set in train a process through which practice was influenced by it and developed into customary law. Those looking into the development of customary IHL/LOAC today are, of course, almost invariably prompted to consult the major study of the subject carried out under the auspices of the International Committee of the Red Cross between 1995 and 2005. Unfortunately, when it comes to that element of IHL/LOAC exclusively applicable at sea, this is not possible. The Customary International Humanitarian Law study avoided altogether an examination of the rules specifically governing


46. Pakistan laid a minefield in the approaches to Chittagong in East Pakistan.

47. Argentina laid contact mines in the approaches to Port Stanley harbor and gave notification of the presence of the minefield in April 1982.

48. Both Croatian and Federal forces laid mines on the Adriatic coast off the Federal naval base at Lora-Split and off the besieged city of Dubrovnik, respectively.

49. The results of which were published as the Customary International Humanitarian Law study in 2005. CIHL Study, supra note 2.
the maritime aspects of armed conflict; those governing sea mining activities, were not, therefore, included. One reason frequently given for this (and especially in response to the criticism that this was an unfortunate oversight) is that the relevant law had already been comprehensively examined by a project conducted under the auspices of the Institute of International Humanitarian Law (IIHL) based in Sanremo, Italy. The outcome of the IIHL’s project was published in 1995 as the San Remo Manual on International Law Applicable to Armed Conflicts at Sea.\textsuperscript{50} The San Remo Manual is undoubtedly an extremely important reference on the IHL/LOAC applicable at sea. What it says about sea mines will be central to a discussion of the law relating to them, and leads to questions about the status of the San Remo rules and how were they determined.

A number of factors prompted the IIHL to conduct its study into IHL/LOAC at sea. First, there had been no formal development of the law governing the conduct of naval operations during armed conflict since the Second World War which, by then, had concluded fifty years earlier (the only related treaty was the 1949 Geneva Convention II,\textsuperscript{51} which did not focus on the means and methods by which naval operations are conducted). Second, the peacetime law of the sea had developed in significant ways through the UN law of the sea conferences, especially the third of those that took place between 1974 and 1982, and which resulted in the 1982 United Nations Convention on the Law of the Sea.\textsuperscript{52} Most significant for naval operations had been the Convention’s extension and enhancement of coastal-State jurisdiction and the formal introduction of straits transit and archipelagic sea lanes passage. Although the Convention was a part of what would traditionally have been referred to as the “law of peace,” its provisions would clearly have an impact on the conduct of naval operations in time of war, especially in relation to neutral rights and obligations. Third, as noted above, there had been a number of conflicts since 1945 with naval dimensions that had highlighted legal issues, not least the then most recent: the UN-mandated operation against Iraq following its invasion of Kuwait

\textsuperscript{50} The date of the San Remo Manual’s publication, coinciding with the start of the International Committee of the Red Cross’s project leading to the Customary International Humanitarian Law study, was significant in relation to the decision not to include the law governing naval operations in the latter.


in 1990, the 1980–88 Iran-Iraq War and the Falklands War in 1992. An attempt to develop treaty law relating to sea mines in the context of the Convention on Certain Conventional Weapons (CCW) failed to result in any negotiations. While weapons law had developed significantly, and was continuing to do so through the negotiation of protocols to the CCW, there had been no development in weapons law dealing with naval weapon systems since before the Second World War. For all these reasons, the IHL/LOAC applicable at sea was certainly worthy of some reassessment.

The San Remo Manual was the result of a process of consultation and discussion between 1987 and 1994 at two round tables and six meetings of a group of naval experts and lawyers. Fifty-six participants, together with ninety-four associated experts and observers, were engaged, many of whom were serving naval officers and other officials. They represented every region of the world and included individuals from a significant number of naval powers, including each of the five permanent members of the UN Security Council. Although they contributed to the process in their personal capacity (not formally representing their States), their involvement was often directly related to the official positions they then held in their navies or government departments. Successive British Chief Naval Judge Advocates were engaged, for example, each handing the participation role over to his official successor in office as the process moved forward.

The result of the process, published in 1995, was authoritative without being either an attempt to develop conventional law or account for the then current state of customary law. Indeed, it was innovative in several respects in attempting to place the law of naval operations during armed conflict into a late-twentieth century context. As a source of the law it is, therefore, somewhat ambiguous. Nevertheless, it has become a frequently


54. The Convention has a series of protocols additional to it dealing with specific weapons, new protocols being added as deemed appropriate. A proposal for such a protocol, dealing with sea mines, had been advanced by Sweden in the late-1980s, but the idea was rejected. See BUSUTTIL, supra note 8, at 79–89, 94–97. The CCW does now include the 1996 Amended Protocol on the use of mines, booby traps and other devices, but Article 1(1) states that it does not apply to the use of anti-ship mines at sea or in inland waterways. Amended Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, May 3, 1996, 2048 U.N.T.S. 93.

55. See the lists of those attending the meetings in the San Remo Manual, supra note 5, at 46–55.
quoted and widely used guide as to what the law ought to say about the conduct of naval operations in armed conflict. In that sense, as it is consulted and used for that purpose, it has been having an effect on the development of both practice and opinio juris. It was, for example, used as the first draft of the chapter on Maritime Warfare in the UK’s official Manual of the Law of Armed Conflict published in 2004. Each of its rules was then reviewed, with those not reflecting either conventional or customary law being rejected. In the case of mine warfare, the UK’s Manual used precisely the wording of the relevant San Remo Manual articles (rules 80 to 92 inclusive). It was British policy only to include reference in its Manual to what it believed to be the law. The repeating of the San Remo Manual rules on mine warfare can be regarded, therefore, as strong evidence that the United Kingdom, at least, considers them to have legal force.

The Handbook of International Humanitarian Law, an extremely important publication, the original purpose of which was to be an expanded version of the German manual on IHL/LOAC (expanded essentially by the inclusion of extensive commentary), is now in its third edition, but is no longer “connected to a single national manual.” Its chapter on naval warfare in all three editions has been the work of Heintschel von Heinegg, one of the world’s foremost experts on this body of law, who was also involved in the project to produce the San Remo Manual as one of the project’s rapporteurs. It is of interest to note comments from the Handbook. On the subject of the customary status of the rules in the 1907 Convention, it states that

apart from the problem of whether [the 1907 Convention] is of significance for modern mines, it seems to be the correct view that [the Convention] qua customary law remains a valid legal yardstick for the use of automatic contact mines. [The Convention] has, therefore, acquired the status of customary international law governing the use of automatic contact mines. However, its provisions are not applicable as such to other modern mines. These are, it is submitted, governed by the rules and prin-


57. THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW, supra note 27, at xvii.
principles of customary international law, which also provide norms regulating the area where naval mines—whether antiquated or sophisticated—may be employed.\textsuperscript{58}

While the rules contained in the 1907 Convention are regarded as having attained customary status in relation to automatic contact mines alone, they have also, when combined with other elements of customary law, led to the devising of the rules contained in the \textit{San Remo Manual}.\textsuperscript{59} They apply to all forms of sea mines (which are defined as “explosive device(s) laid in the water, on the seabed or the subsoil thereof, with the intention of damaging or sinking ships or deterring ships from entering an area”).\textsuperscript{60}

\section*{VII. Conclusion}

Especially in relation to mining activities and their effect during the two world wars, the stated and fundamental aim of the 1907 Convention contained in its Preamble—“to mitigate the severity of war and to ensure, as far as possible, to peaceful navigation the security to which it is entitled”—was not achieved. The Convention did not prevent the twentieth century increase in the use of sea mines during major war involving sustained naval operations. Trade was massively and intentionally affected in both world wars by the laying of extensive minefields in sea areas central to the war effort of the belligerents. The sea mine had become an influential weapon of war.

Nevertheless, one should resist simply writing the Convention off as a completely ineffective instrument of regulation of wartime mining. There is certainly evidence that some provisions contained in it have been acknowledged and applied—perhaps not with precision or by all belligerents in all circumstances, but certainly in part and to an extent that is significant. That in itself is a positive comment, not least when one acknowledges that the Convention was never actually applicable in any of the wars/conflicts fought during the years following its negotiation. At no time in any conflicts were all belligerents’ party to it and, for that reason, arguably none

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\textsuperscript{58} Heintschel von Heinegg, \textit{supra} note 27, at 504.
\textsuperscript{60} \textit{SAN REMO MANUAL, supra} note 5, at 169. The definition is not included as a rule itself, but is included in the commentary indicating that it was used for the purposes of compiling the manual.
\end{flushright}
were under a legal obligation to apply it as treaty law. In addition, the Convention was strictly concerned with automatic submarine contact mines, which have never been the only type of sea mine available for use. In particular, from the outbreak of the Second World War influence mines began to appear and have eventually become the most sophisticated mine of choice for those having them in their mine inventory. One might make a case—although I do not—that the significant concern motivating those negotiating the 1907 Convention, to achieve an enhanced ability to comply with the principle of distinction, provided impetus to develop smarter mines than the automatic contact variety dominating mine warfare in the early years of the twentieth century. Certainly today mines are very capable of identifying even specific ships and can, therefore, be programmed not to respond to vessels that are protected civilian objects. The motive behind the development of influence mines was, however, more to do with creating a more effective weapon consistent with the principle of war of economy of effort (not forgetting also, that of surprise!) than it was humanitarian (although the two outcomes can certainly chime).

Despite its shortcomings as a treaty, the 1907 Convention has, over a period of more than a century, had an influence on the development of customary law on sea mining. Despite the ambiguities inherent in its text and its failure adequately to address some important considerations, in particular those to do with the sea areas in which mining is permitted, when the rules in the 1907 Convention are combined with other rules of customary law (for example, those forming a part of the law of the sea), it is possible to identify a series of rules that can be applied to sea mines of all levels of sophistication. The San Remo Manual contains a useful attempt to do this and the Manual’s rules as drafted twenty years ago are obtaining a degree of authority, as evidenced by their inclusion in national manuals, such as those produced by the United Kingdom and Germany.\textsuperscript{61}

The 1907 Convention’s rules are currently a part of the mix that has resulted in the San Remo rules. If those rules achieve progressively great authority over time, then one answer to the question to do with the need for a new, updated convention is that it is by no means necessary. An attempt by Sweden in 1994 to achieve that by its proposal for a protocol to the CCW failed. There is currently no generally articulated need for a development in the conventional law. Such developments are, of course, more fre-

\textsuperscript{61} BUNDESMINISTERIUM DER VERTEIDIGUNG, HUMANITÄRES VÖLKERRECHT IN BEWÄFFNETEN KONFLIKTEN (2013).
quently than not prompted by events that serve to demonstrate the need for new treaty law. For the moment, there seems little prospect for this as it would probably only materialize as a consequence of a general naval war of the like not experienced since 1945. This is despite periodic inconveniences, such as the mining of the Persian Gulf during both the Iran-Iraq War and following the Iraqi invasion of Kuwait.