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## Beyond Hague VIII: Other Legal Limits on Naval Mine Warfare

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## I. INTRODUCTION

The use of mines, both at sea and on land, is an aspect of warfare that has constantly attracted critical attention, especially as there is a high potential for indiscriminate outcomes that directly affect parts of the population who are entitled to protection from the impact of warfare.

Naval mines, the subject of this article, are a relatively inexpensive weapon and have been deployed in almost every maritime conflict over the past century.<sup>1</sup> Currently, mines form a key part of the naval weapons inventory of several States, including China and Iran.<sup>2</sup> Technological advances have resulted in new types of mines being developed since 1907.<sup>3</sup> Accordingly, it may be somewhat surprising that there is only one international legal instrument that directly purports to regulate naval mine warfare—1907 Hague Convention VIII<sup>4</sup> (Hague VIII)—a Convention that deals with mine warfare as it existed over a century ago. This is in contrast with the international community’s identification of the deployment of mines in the

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1. For example, mines were used in both World Wars, the Korean War, the Vietnam War, the 1980–88 Iran-Iraq War, the 2003 Gulf War and during the 2011 Libyan conflict. See Wolff Heintschel von Heinegg, *Methods and Means of Naval Warfare in Non-International Armed Conflicts*, in NON-INTERNATIONAL ARMED CONFLICT IN THE TWENTY-FIRST CENTURY 211 (Kenneth Watkin & Andrew J. Norris eds., 2012) (Vol. 88, U.S. Naval War College International Law Studies).

2. A comprehensive evaluation of Chinese naval mine warfare capability is provided in Andrew S Erikson, Lyle J Goldstein & William S. Murray, *Chinese Mine Warfare: A PLA Navy ‘Assassin’s Mace’ Capability*, 3 CHINA MARITIME STUDIES, no. 3, June 2009, available at <https://www.usnwc.edu/Publications/Publications.aspx> (then China Maritime Study No. 3 June 2009 hyperlink). A summary of Iranian naval mine warfare capability is provided in Fariborz Haghshenass, *Iran’s Asymmetric Naval Warfare*, WASHINGTON INSTITUTE FOR NEAR EAST POLICY, Policy Focus 87, Sept. 2008, at 16, available at <http://www.washingtoninstitute.org/uploads/Documents/pubs/PolicyFocus87.pdf>.

3. Types of mines include limpet mines (attached to a vessel’s hull); moored, drifting, floating and bottom contact mines; remote controlled mines; and magnetic, acoustic and pressure mines. There are also mines with special characteristics such as aerial delivery, torpedo propulsion, vertical rising mines, hydrostatic depth control and “daisy-chain” mines (although contemporary use of “daisy-chain” mines by naval forces appears to be low, there is scope for the use of this mining technique in the form of maritime improvised explosive devices by terrorist organizations).

4. Convention No. VIII Relative to the Laying of Automatic Submarine Contact Mines, Oct. 18, 1907, 36 Stat. 2332.

land environment as an issue requiring immediate attention—a need that has been addressed, in part, by the adoption of the Ottawa Convention in 1997.<sup>5</sup>

Other articles in this forum consider Hague VIII in detail and demonstrate that it places only very limited restrictions on the conduct of naval mine warfare. The purpose of this article is to identify what additional legal rules govern the use of naval mines in international armed conflict (IAC). As with other weapons systems, the type of mine used, and the manner in which it is used, may clearly affect the legality of its use. It is therefore operationally important to understand the extent of the legal framework which applies to naval mine warfare, and the legal and operational implications that arise beyond the limited restrictions that are provided in Hague VIII.

Perhaps unsurprisingly, a scan of academic texts and literature portrays an underlying assumption that the only clearly relevant legal regime applicable to the use of naval mines in IACs, as both a matter of treaty and customary international law, is the regime in Hague VIII.<sup>6</sup> While references are made in some of these publications to other treaties that have entered into force over the past century which might impact the use of naval mines in IACs, it does not appear that detailed consideration of the consolidated legal effect from the accumulation of treaty law, judicial decisions and, (if applicable) any developments in customary international law, is usually undertaken. This article seeks to address that shortfall.

The article proceeds in three parts. It begins by assessing *jus ad bellum* constraints on mining, before moving to an examination of the *jus in bello*, with a particular focus on four key law of armed conflict (LOAC) principles: distinction, proportionality (including precautions), military necessity and humanity/unnecessary suffering. The final part considers other signifi-

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5. Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and their Destruction, Sept. 17, 1997, 2056 U.N.T.S. 211 [hereinafter Ottawa Convention].

6. See, e.g., YORAM DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT 75–76 (2d ed. 2010); Howard S. Levie, 1907 Hague Convention VIII Relative to the Laying of Automatic Submarine Contact Mines—Commentary, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES 129, 141–2 (Natalino Ronzitti ed., 1988); HOWARD S. LEVIE, MINE WARFARE AT SEA 175 (1992); Shaun Lyons, *Naval Operations in the Gulf, in THE GULF WAR 1990–91 IN INTERNATIONAL AND ENGLISH LAW* 155, 168–69 (Peter Rowe ed., 1993); SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA 168–76 (Louise Doswald-Beck ed., 1995) [hereinafter SAN REMO MANUAL].

cant legal regimes that may have applicability to the use of naval mines in IACs.

The provisions of Hague VIII are not, on a strict interpretation, applicable to mines other than automatic submarine contact mines. However, the *San Remo Manual* notes that there are some basic principles which derive from Hague VIII and customary international law that inform the law regarding naval mine warfare.<sup>7</sup> These key principles are:

- mines may only be used to achieve a legitimate military outcome;
- belligerents must retain some control over mines they have deployed and/or have the ability to render a mine safe if such control is lost;
- notification of minefields must occur; and
- the location of a minefield must be recorded so that the area can be cleared once hostilities have ceased.

These principles have been reinforced and/or affirmed by the International Court of Justice (ICJ) on a number of occasions, including in the *Corfu Channel*,<sup>8</sup> *Nicaragua*<sup>9</sup> and *Oil Platforms*<sup>10</sup> cases. Relevant aspects of these cases are assessed throughout this article.

## II. USE OF NAVAL MINES: *JUS AD BELLUM*

The prohibition on States threatening or using force under the circumstances described in Article 2(4) of the Charter of the United Nations<sup>11</sup> clearly may have implications for the use of naval mines. As the prohibition under Article 2(4) extends to both the “threat” and “use” of force, there would not need to be an actual deployment of mines for a breach to occur. For example, it may be sufficient for a breach to occur when a State threatens to mine the territorial sea of another State during a period when tension between the two States is heightened (e.g., as part of an IAC precursor or shaping operations). Whether the threatening State was actually capable of carrying out the threat of deploying naval mines would consti-

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7. SAN REMO MANUAL, *supra* note 6, at 168–76.

8. *Corfu Channel* (U.K. v. Alb.), 1949 I.C.J. 4 (Apr. 9).

9. *Military and Paramilitary Activities in and against Nicaragua* (Nicar. v. U.S.), 1986 I.C.J. 14 (June 27) [hereinafter *Nicaragua*].

10. *Oil Platforms* (Iran v. U.S.), 2003 I.C.J. 161 (Nov. 6).

11. U.N. Charter, June 26, 1945, 59 Stat. 1031, 1 U.N.T.S. XVI.

tute a relevant factor in determining whether Article 2(4) had been breached. Taking these circumstances further, the actual deployment of naval mines in another State's territorial sea would, *prima facie*, result in a breach of Article 2(4) unless there was a legitimate basis upon which the minelaying had taken place. In this regard, John Norton Moore notes that the laying of clandestine mines is no different in terms of being a use of force than firing from shore gun positions at passing warships.<sup>12</sup>

However, two clear exceptions to the Article 2(4) prohibition do exist under international law. The first is when the UN Security Council authorizes the use of force pursuant to a resolution under Chapter VII, Article 42 of the Charter, and the second is when a State takes action in self-defense under Article 51 or customary international law. If there is Security Council authorization for States to take action under a Chapter VII resolution then that authorization clearly provides a legal basis upon which naval mines could be legitimately deployed (or threats made for their deployment) in circumstances that might otherwise be considered unlawful under Article 2(4). Similarly, if a State deploys naval mines in response to an armed attack that has occurred,<sup>13</sup> then such use of mines would be lawful either under the express provision of Article 51 or as a measure taken by the State pursuant to the "inherent" customary international law right that exists for a State to defend itself.<sup>14</sup>

An additional circumstance when a State might legitimately deploy naval mines prior to an IAC occurring is for the purpose of sea area denial when tensions are rising in what might be termed the pre-hostilities period. This action need not take place in another State's territorial waters, but might occur in the minelaying State's own national waters (internal, territorial and archipelagic) or in international waters (exclusive economic zones and high seas). In these circumstances, the laying of mines might not constitute a use or threat of force against a particular State, but such action might nonetheless infringe other rules of international law. For example, as

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12. John Norton Moore, *Jus ad Bellum Before the International Court of Justice*, 52 VIRGINIA JOURNAL OF INTERNATIONAL LAW 903, 918 (2012).

13. There is some debate regarding whether or not in the post-Charter era there is a continuing right of self-defense action that can be taken if an armed attack is "imminent" or whether an armed attack must have actually occurred prior to action in self-defense being taken. *See id.* at 913.

14. By characterizing the debate in this way, questions regarding whether Article 51 of the UN Charter has displaced the customary international law right for a State to use force in self-defense are avoided as this issue is not central to the topic being addressed in this article.

is discussed below, the deployment of naval mines in this context would interfere with other States' exercise of navigational freedoms on the high seas or EEZ, or the more limited right of innocent passage in territorial waters.<sup>15</sup>

As the primary focus of this article is not on the use of naval mines as part of the *jus ad bellum*, attention will now turn to issues that arise in considering the use of naval mines in situations where an international armed conflict has occurred—the *jus in bello*.

### III. USE OF NAVAL MINES: *JUS IN BELLO*

It is necessary to consider whether LOAC precludes—or permits—the use of naval mines as either a means (i.e., type of weapon) or method (i.e., the manner in which an armed conflict is conducted) of warfare.<sup>16</sup> In answering this question, it may be easy at first to simply agree with the proposition that there have not been any challenges to the “lawfulness of the use of mines, including those other than the contact type, provided that the general principles deducible from [Hague] Convention VIII are respected.”<sup>17</sup> However, there are some nuances to this proposition that should be examined in order to fully assess its validity. To do so, weapons law, the four basic LOAC principles—distinction, proportionality (including precautions), military necessity and humanity/unnecessary suffering—and perfidy, as well as other legal regimes that apply during IACs, are considered.

First, however, some general observations on the applicability of Additional Protocol I<sup>18</sup> (AP I) to naval warfare are required. Whether or not AP I applies to naval mines has generated some debate. According to Bothe, for example, “the question of naval mines is . . . not regulated by the Pro-

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15. See Levie, *1907 Hague Convention VIII*, *supra* note 6, at 141; United Nations Convention on the Law of the Sea arts. 17–19, 87, Dec. 9, 1984, 1833 U.N.T.S. 3 [hereinafter LOSC].

16. The requirements that arise from the deployment of naval mines in blockade and the use of zones, are not discretely examined here. See SAN REMO MANUAL, *supra* note 6, at 176–83.

17. THE IRAN-IRAQ WAR (1980–1988) AND THE LAW OF NAVAL WARFARE 5 (Andrea de Guttry & Natalino Ronzitti eds., 1993).

18. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, June 8, 1977, 1125 U.N.T.S. 3 [hereinafter AP I].

ocol”;<sup>19</sup> a view that appears to be supported in 1992 by Levie.<sup>20</sup> Others may agree with the view taken in 1984 by Rauch that AP I does have applicability, although not to the extent that Rauch feared when he stated that “naval staffs might be faced with unsurmountable difficulties to chart any effective mine warfare compatible with Protocol I.”<sup>21</sup> Although perhaps standing into danger by raising this subject at all, and without wishing to embark on a voyage that would inflame the “famous dispute between Meyrowitz and Rauch” as it has been so eloquently described by one noted commentator,<sup>22</sup> it is asserted that the applicability of aspects of AP I to naval mine warfare, in so far as those aspects represent customary international law, is a relevant consideration.

AP I Article 49(3) contains provisions on the protection of civilians that may be relevant to naval mines:

The provisions of this Section apply to any land, air or sea warfare which may affect the civilian population, individual civilians or civilian objects on land. They further apply to all attacks from the sea or from the air against objectives on land but do not otherwise affect the rules of international law applicable in armed conflict at sea or in the air.

The immediate effect of Article 49(3) is to exclude the section of AP I that deals with the “General Protection of the Civilian Population” from applying to naval warfare at sea provided there is nothing arising from the naval warfare that affects the civilian population or civilian objects on land. This limitation reflects the intention of the delegates at the Diplomatic Conference responsible for drafting AP I to avoid revising the law that applies to armed conflict at sea (and in the air). Sea (and air) warfare are, however,

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19. Michael Bothe, *1977 Geneva Protocol I Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts – Commentary*, in *THE LAW OF NAVAL WARFARE*, *supra* note 6, at 673, 762.

20. LEVIE, *MINE WARFARE AT SEA*, *supra* note 6, at 179 n.7.

21. ELMAR RAUCH, *THE PROTOCOL ADDITIONAL TO THE GENEVA CONVENTIONS FOR THE PROTECTION OF VICTIMS OF INTERNATIONAL ARMED CONFLICTS AND THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: REPERCUSSIONS ON THE LAW OF NAVAL WARFARE* 57–66, 127–31 (1984).

22. The dispute between Henri Meyrowitz and Elmar Rauch occurred in the 1980s when these scholars argued about whether, or if, any particular elements of, AP I was applicable to naval warfare. See Wolff Heintschel von Heinegg, *Submarine Operations and International Law*, in *LAW AT WAR: THE LAW AS IT WAS AND THE LAW AS IT SHOULD BE* 141, 153 (Losa Engdahl & Pål Wrange eds., 2008).



affected by a number of other treaties of “general application.”<sup>23</sup> The continued application of other law is also reflected in the final sentence of Article 49(3), as well as the clear words of Article 49(4) which provide direct reference to “other international agreements . . . [and] . . . other rules of international law relating to the protection of civilian and civilian objects on land, at sea or in the air against the effects of hostilities.”

Irrespective of whether Article 49 applies to the use of naval mines in IACs, much of what is contained in AP I’s section dealing with the protection of the civilian population<sup>24</sup> reflects customary international law with a resultant wider applicability in times of armed conflict and therefore binds States in their maritime operations during IACs. This view is consistent with contemporary scholarly work, including the commentary contained in the *San Remo Manual*<sup>25</sup> and many national LOAC manuals,<sup>26</sup> and it is the approach taken in this article. The law of naval warfare and customary international law are thus applicable in ensuring that the civilian population is

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23. COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, at 606 (Yves Sandoz, Christophe Swinarski & Bruno Zimmermann eds., 1987) (citing the 1954 Hague Cultural Property Convention and 1925 Gas Protocol as examples) [hereinafter COMMENTARY ON THE ADDITIONAL PROTOCOLS].

24. AP I, *supra* note 18, Part IV. Part IV of AP I deals with the “Civilian Population” and Section 1 provides for “General Protection against Effects of Hostilities.” Articles 48–67 inclusive are within Section 1.

25. *See, e.g.*, SAN REMO MANUAL, *supra* note 6, at 113–24.

26. For example, the Australian Defence Force law of armed conflict publication provides, “[t]here is a *fundamental rule* that parties to a conflict must direct their operations only against military objectives. G. P. I expressly provides that the civilian population and civilian objects are to be protected against attack.” Australian Defence Headquarters, ADDP 06.4, Law of Armed Conflict ¶ 5.35 (2006), *available at* <http://www.defence.gov.au/adfwc/Documents/DoctrineLibrary/ADDP/ADDP06.4-LawofArmedConflict.pdf> (emphasis added) [hereinafter Australian Manual]. The United States, despite not being party to AP I, has a similar acknowledgement in U.S. MARINE CORPS & U.S. COAST GUARD, NWP 1-14M/MCWP 5-12.1/COMDTPUB P5800.7A, THE COMMANDER’S HANDBOOK ON THE LAW OF NAVAL OPERATIONS ¶ 8.3 (2007) [hereinafter COMMANDER’S HANDBOOK]. *See also* the CANADIAN NATIONAL DEFENSE JOINT DOCTRINE MANUAL B-GJ-005-104/FP-021 THE LAW OF ARMED CONFLICT AT THE OPERATIONAL AND TACTICAL LEVELS ¶ 4.11 (2003) stating, “[t]he protection of civilians and civilian objects is a fundamental principle of the LOAC. Parties to a conflict have a duty to distinguish between civilians and combatants as well as between civilian objects and military objectives” and the UNITED KINGDOM MINISTRY OF DEFENCE, THE MANUAL OF THE LAW OF ARMED CONFLICT ¶ 5.3 (2004). All of these sources are available at the U.S. Naval War College’s Stockton e-Portal, <http://usnwc.libguides.com/content.php?pid=324502&sid=2759900>.

protected from being affected unduly by naval warfare, including the use of naval mines.

AP I Article 35 sets out the “basic rules” in relation to the methods and means of warfare and stipulates that “[i]n any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited.” Article 35 is situated in a part of AP I that is not affected by Article 49(3) and, in any case, there is little doubt that the concept that is articulated in the Article is part of customary international law. Therefore, as a starting point, there are legal limits placed upon naval warfare in general which flow by implication to the use of naval mines in particular as a result of the requirement for States involved in an IAC to adopt certain practices that ensure their actions are legally permissible.

#### A. Weapons Law Restrictions on Mines

The first question is whether any type of naval mine is banned outright under weapons law. In particular, the development or eventual use of a nuclear naval mine (if such mines presently exist)<sup>27</sup> may be questionable from a number of legal perspectives. The ICJ considered the legality of the threat or use of nuclear weapons in its July 8, 1996 advisory opinion,<sup>28</sup> in which the Court was unable to find a general or overall prohibition on the use of nuclear weapons by either treaty or customary international law.<sup>29</sup> The Court carefully considered whether the use of nuclear weapons was compatible with the requirement of the laws applicable in international armed conflict on a number of grounds. Although the Court expressed serious reservations regarding the use of nuclear weapons, it was unable to reach a conclusion that such use was manifestly illegal in all circumstances.<sup>30</sup> Perhaps of particular significance to nuclear naval mines, the Court stated that

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27. See, e.g., a report in 2011 that questioned whether North Korea was developing a nuclear naval mine capability. Jon Rabiuff, *U.S Military Enters New Generation of Sea Mine Warfare*, STARS AND STRIPES (May 9, 2011), <http://www.stripes.com/news/u-s-military-enters-new-generation-of-sea-mine-warfare-1.143170>. See also a 2007 report that raised questions regarding whether China might consider developing a nuclear naval mine capability in the future. Andrew S. Erikson, Lyle J. Goldstein & William S. Murray, *China's Undersea Sentries*, 9 UNDERSEA WARFARE, Winter 2007, at 11, 13–14, available at [http://www.navy.mil/navydata/cno/n87/usw/issue\\_33/china\\_2.html](http://www.navy.mil/navydata/cno/n87/usw/issue_33/china_2.html).

28. Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 41 (July 8) [hereinafter *Nuclear Weapons*].

29. Noting this, see DINSTEN, *supra* note 6, at 84.

30. *Id.*

it was not able to determine whether there might be circumstances when the use of small-yield tactical nuclear weapons might be legal.<sup>31</sup>

A further issue is whether any treaty prohibits nuclear naval mines outright. The Seabed Arms Control Treaty<sup>32</sup> might be relevant in this regard, though it is only applicable in limited areas and circumstances among the States that are party to it. Pursuant to Article I, the States that are party

undertake not to emplant or emplace on the seabed and the ocean floor and in the subsoil thereof beyond the outer limit of a seabed zone, as defined in article II, any nuclear weapons or any other types of weapons of mass destruction as well as structures, launching installations or any other facilities specifically designed for storing, testing or using such weapons.

This undertaking would directly affect a nuclear naval mine that offended the specific provisions in the Article, but not other types of nuclear naval mines which might be deployed in a different manner.

The conclusion in relation to nuclear naval mines is that the use of such weapons in an IAC would attract legal issues similar to any other nuclear weapon. This result means that at present there is no absolute prohibition on the use of nuclear naval mines that can be categorically asserted to exist. However, in the same way as any other naval mine could potentially be deployed in a manner that does not conform with *jus in bello* obligations, it is clear that the use of nuclear naval mines could be problematic in some (if not many) discrete circumstances.

#### B. Basic LOAC Principles and Perfidy

This section analyzes the use of naval mines in IACs from the perspective of each of the four basic LOAC principles, namely distinction, proportionality (including precautions), military necessity and humanity/unnecessary suffering. These principles are considered within the context of the relevant provisions contained in AP I and customary international law. The application of the prohibition on perfidious conduct is also examined briefly.

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31. *Nuclear Weapons*, *supra* note 28, ¶ 94.

32. Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof, May 18, 1972, 23 U.S.T 701, 955 U.N.T.S. 115.

## 1. Distinction

In naval warfare, the primary focus of operations is not against the individual sailors that are serving on a ship, but instead the platform itself is identified as the object that is being targeted. In terms of distinguishing between vessels that can legitimately be targeted and those that cannot, this platform-focus may actually simplify the requirement for the principle of distinction to be applied.

However, it is noted in the *San Remo Manual* that there is no specific treaty provision that requires the principle of distinction to apply in naval warfare.<sup>33</sup> AP I Article 48 requires States involved in an IAC to “distinguish between the civilian population and combatants and between civilian objects and military objectives” and Article 51(4) prohibits indiscriminate attacks, but as noted above these Articles are in a section of AP I that does not apply to naval warfare. Nevertheless, there is a customary international law obligation to apply the principle of distinction in all aspects of warfare and that is the basis upon which the following discussion unfolds.<sup>34</sup>

The notion that naval mines should be used in an IAC in a manner that ensures the principle of distinction is applied is perhaps unremarkable. As noted earlier, there is a customary international legal obligation to distinguish between military objectives and civilian objects in all types of warfare. In relation to naval mines, this customary obligation has been commented upon in both the *Corfu Channel*<sup>35</sup> and *Nicaragua*<sup>36</sup> cases. In these cases, the ICJ considered that a State which is aware of (or has caused) a naval mine danger is obliged to give some notification of its existence and location in order to protect the security of neutral/peaceful shipping as a matter of customary international law that States are bound to observe in peace and war.<sup>37</sup> Although both of these cases dealt with situations where the laws

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33. SAN REMO MANUAL, *supra* note 6, at 114.

34. Other provisions of AP I also have relevance to the principle of distinction (e.g., AP I, *supra* note 18, arts. 38, 41, 42, 44).

35. *Corfu Channel*, *supra* note 8, especially at 22–23.

36. *Nicaragua*, *supra* note 9, at 147–48. Note particularly the finding by the ICJ in relation to the failure of the United States to “make known the existence and location of the mines laid by it.”

37. See JAMES J. BUSUTIL, NAVAL WEAPONS SYSTEMS AND THE CONTEMPORARY LAW OF WAR 54–56 (1998) for a brief summary of portions of these cases that are relevant to the use of naval mines in an IAC. See also LEVIE, MINE WARFARE AT SEA, *supra* note 6, at 166, where he asserts there can “be no quarrel” with the customary international law requirement for notification of the existence and location of a minefield.

applicable in international armed conflict did not apply, the ICJ's finding that the principle of distinction was customary in nature means that it would clearly apply in IACs. This concept is also reflected in the *San Remo Manual* at paragraphs 83 and 84.

Further support, if needed, for the relevance of the principle of distinction in relation to the use of naval mines in IACs can be obtained from consideration of the Second Geneva Convention of 1949<sup>38</sup> (GCII). Although relating to the protection of victims of armed conflict, GCII Article 34 stipulates that “[t]he protection to which hospital ships and sick-bays are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy.”

So, for example, it could be readily argued that the deployment of naval mines in an IAC in a manner that does not discriminate between a military vessel and a civilian vessel (or a specially protected vessel such as a hospital ship) would not be lawful. This proposition is valid regardless of the type of mine deployed, as it is the manner in which the mine is used that is the key factor. Taking the example a little further, would it make a difference if a civilian/protected vessel that was carrying material that was inconsistent with its civilian/protected status was struck by a naval mine in an IAC? That is, would such an attack be contrary to the law of armed conflict, or, as is suggested by the *San Remo Manual*, would it be a question best addressed in terms of proportionality?<sup>39</sup>

Because the focus in naval warfare is primarily on attacks against objects/platforms, rather than on individuals, a discussion of the principle of distinction is appreciably different from what may be experienced in the land environment. For instance, AP I Article 41 provides that “[a] person who is recognized or who, in the circumstances should be recognized to be *hors de combat* shall not be made the object of attack.” It is most unlikely that a naval mine would be able to distinguish such persons without external input. Further, due to the focus of naval warfare on the vessel in lieu of the person, the mere presence of someone who is *hors de combat* in a vessel that strikes a mine does not create a legal quandary for the State that has deployed the mine.

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

39. See SAN REMO MANUAL, *supra* note 6, at 124, where the suggestion is made that the sinking of the passenger liner *Lusitania* during the First World War was, with the benefit of hindsight, a disproportionate act when a comparison is made between the material being carried and the loss of civilian life that occurred as a result of the sinking.

There are other considerations that can be looked at in terms of the discriminatory nature of naval mines. The use of free-floating mines is problematic unless they are directed against a military objective. There is also the additional problem of how to render such mines harmless once control over them is lost. Notification of the location(s) in which mines have been laid also assists with militating against any indiscriminate consequence that might flow from the use of naval mines, especially if such notification results in “due regard” to the legitimate uses of the seas by vessels of those States uninvolved in a conflict.

## 2. Proportionality (and Precautions in Attack)

The definition of “attack” adopted in AP I is contained in Article 49(1). Although the treaty article is not directly applicable to naval warfare, the concept embodied in that article was adopted by the *San Remo Manual* with a modification to reflect the fact that in naval warfare it may be permissible to conduct an “act of violence” against shipping or aircraft of neutral States—not just an “adversary.” Both definitions are otherwise the same, and both envision that an attack may include an act that could be considered “defensive,” such as laying mines.<sup>40</sup>

AP I Article 57 describes “precautions in attack” that combatants are required to observe in relation to the civilian population, civilians and civilian objects. This article, however, is also contained within the section of AP I that specifically does not apply to warfare that occurs at sea. If the requirement articulated in AP I Article 57 (2)(b) that “an attack shall be cancelled or suspended if it becomes apparent that the objective is not a military one or is subject to special protection or that the attack may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated” is part of customary international law, it would be particularly problematic when naval mines are used in IACs. Some of this difficulty relates to the purpose for which naval mines might be deployed, such as sea control or area denial, where the targeting or “attack” is not directed against any vessel or group of persons. Although it has been noted earlier that naval warfare is primarily concerned with targeting platforms, in the case of mine warfare it

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40. *Id.* at 87 describes how the laying of mines “are ‘attacks’ for the purposes of the law.” The COMMENTARY ON THE ADDITIONAL PROTOCOLS, *supra* note 23, at 602–3, although referring to the laying of landmines, makes the same point in paragraph 1881.

may be difficult to determine that a naval mine has been directed at a particular vessel, except in some very limited and specific circumstances. This line of reasoning was certainly adopted in the *Oil Platforms* judgment.<sup>41</sup>

The degree to which AP I Article 57 reflects customary international law is unclear due to the lack of State conformity regarding how Article 57 is construed. Therefore, any realistic assessment of the influence of the principle of proportionality on the use of naval mines in IACs is only possible when placed in context. For example, in a situation where a warship or merchant vessel that is transporting a mixture of civilians and military personnel strikes a mine (e.g., during a noncombatant evacuation operation) and casualties are encountered, it may be difficult to question whether the deployment of the mine in the first place raised any proportionality issues. This can be particularly difficult to resolve if the mines have been deployed some time prior to the vessel actually striking the mine—how would the State that deployed the mines have any future knowledge regarding the particulars of the persons that would be onboard any particular vessel? Further, will the type of mine used determine how—and if—the principle of proportionality is to be applied? This leaves an unresolved threshold question in relation to whether there is a proportionality/precaution consideration that should be addressed prior to the initial deploying of naval mines, which, based on the reasoning applied in this article, could not possibly deal with all eventualities that may arise in an IAC. Accordingly, it is considered that the concept of proportionality, as it applies in the targeting equation in relation to the use of naval mines in IACs, is of limited relevance.

### 3. Military Necessity

There is no specific provision in AP I that deals with the issue of military necessity in broad terms, although as Schmitt, among others, has noted, the inclusion of the “Martens clause” in Article 1(2) of AP I does “affirm its continuing applicability”<sup>42</sup> in the sense that military necessity cannot be used as an overriding justification for taking military action in all circumstances. In a narrow sense, AP I Article 35(1), which was discussed earlier, has some relevance to military necessity in stating that the “right of the

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41. *Oil Platforms*, *supra* note 10, especially at paragraphs 68–71.

42. Michael N. Schmitt, *Military Necessity and Humanity in International Humanitarian Law: Preserving the Delicate Balance*, 50 VIRGINIA JOURNAL OF INTERNATIONAL LAW 795, 800 (2010).

Parties to the conflict to choose methods or means of warfare is not unlimited.” Similarly, AP I Article 54(5), with the caveat regarding its applicability to naval warfare noted, recognizes that a State that is defending its territory against invasion may derogate from the requirement to protect objects that are indispensable to the survival of the civilian population in certain defined circumstances. There may be some applicability to naval mine warfare in this area. For example widespread deployment of naval mines in territorial waters and harbors of a State against enemy forces in a manner that actually indiscriminately targets all shipping (including ships transporting items that are indispensable to the survival of that State’s own population) with the intent of denying such items to the enemy force could be akin to undertaking terrestrial “scorched earth” action. The link, however, is tenuous.

Another issue with regard to military necessity concerns the question of whether States have a continual responsibility to assess whether there is an ongoing need for the mines to remain deployed after being laid. Alternatively, does the notification requirement negate the obligation for continuous reassessment of the need for the minefield? There is no clear answer to this issue. Further, does the laying of naval mines constitute an “attack”? Certain consequences arise if this is indeed the case.

#### 4. Humanity/Unnecessary Suffering

The use of naval mines in IACs should occur in a manner that accords with basic principles of humanity and does not cause unnecessary suffering. AP I Article 35(2) states that “it is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering.” This article represents codification of one of the earliest principles that emerged in the modern law of armed conflict—that causing unnecessary suffering or superfluous injury in armed conflict is not permitted. Its origins can be traced back to the St Petersburg Declaration of 1868,<sup>43</sup> which prohibited the use of exploding bullets against members of the armed forces due to the horrific effect of such a weapon on a human body. Article 35(2) is applicable in naval warfare, but, as noted in

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43. Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight, Nov. 29/Dec 11, 1868, 138 Consol. T.S. 297, 18 Martens Nouveau Recueil (ser. 1) 474, *reprinted in* DOCUMENTS ON THE LAWS OF WAR 54–55 (Adam Roberts & Richard Guelff eds., 3d ed. 2000).



the *San Remo Manual*, its relevance in naval warfare is limited due to naval warfare's focus on action against objects or platforms.<sup>44</sup>

Although the circumstances of the *Corfu Channel* case did not arise from an IAC, the ICJ's findings in the case were based upon "certain general and well recognized principles, namely: elementary consideration of humanity, even more exacting in peace than in war; the principles of the freedom of maritime communication; and every State's obligation not to allow knowingly its territory to be used contrary to the rights of other States."<sup>45</sup> This statement by the ICJ gives strong support to the applicability of the principle of humanity regardless of whether or not mines are deployed in an IAC or in peacetime. It also creates a requirement for records to be kept of the location of minefields and the types of mine used, and clearance operations to be undertaken once hostilities have ceased.

Accordingly, naval mines are only likely to breach this principle if they, on the facts in any particular circumstance, cause unnecessary suffering (for example, by containing projectiles of a type that are banned). Of course, these types of concerns apply to other weapons in just the same way as they would to mines, so in that sense there is nothing remarkable about the use of naval mines which would make them more likely to breach this principle than any other weapon.

## 5. Perfidy

One approach that has been taken to the question of the lawfulness of naval mines is to consider it from the perspective of perfidy. AP I Article 37 sets out the criteria for, and examples of, perfidy. The key elements of perfidy are that it involves "inviting the confidence of an adversary . . . [in relation to] . . . protection under the rules of international law applicable in armed conflict."<sup>46</sup> So, for example, would it be perfidious to declare that mines had been laid when that was not actually the case? It is difficult to see how the use of naval mines in this manner, absent any other factor, would fit within the parameters of perfidy as there does not appear to be an attempt to obtain any "protection" from a declaration that a minefield exists. Such a declaration could be considered a legitimate ruse of naval warfare designed to divert enemy resources from the main war effort by

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44. SAN REMO MANUAL, *supra* note 6, at 118.

45. *Corfu Channel*, *supra* note 8, at 22.

46. BUSUTTI, *supra* note 37, at 14.

having to spend time and effort in establishing whether or not mines have actually been deployed. The clandestine nature of naval mines, in so far as they are not easily detectable, does not support the conclusion that the use of naval mines is perfidious. As it is considered that the criteria set out in AP I Article 37 also reflect customary international law, which means that questions regarding the applicability of the article to naval warfare do not arise, the conclusion reached is that the mere declaration that naval mines have been laid does not, of itself, comprise a perfidious act. Accordingly, there would be no general prohibition on the use of naval mines in IACs on the basis of such use constituting an act of perfidy.

*C. Other Legal Rules which Continue to Apply during an IAC*

As noted earlier, in addition to consideration of the basic LOAC principles, there are a number of other legal regimes that might have an impact on the use of naval mines in IACs. For example, Article 1 of 1907 Hague Convention IX<sup>47</sup> states that “[a] place cannot be bombarded solely because automatic submarine contact mines are anchored off the harbor.” However, the contemporary relevance of this provision in IACs is probably not high. The next section of this article will explore a number of legal regimes that have some application in IACs to evaluate their impact on the use of naval mines in such conflicts.

1. 1982 United Nations Convention on the Law of the Sea (LOSC)

The LOSC is primarily concerned with peaceful (and peacetime) uses of the seas<sup>48</sup> and therefore does not contain any specific provisions that directly regulate naval warfare in general or the use of naval mines in IACs in particular. Nevertheless, there are some aspects of the LOSC that do have relevance to naval mines and these apply in both peacetime and periods of armed conflict.<sup>49</sup>

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47. Convention No. IX Concerning Bombardment by Naval Forces in Time of War, Oct. 18, 1907, 36 Stat. 2351.

48. LOSC, *supra* note 15, art. 301.

49. A brief summary of the key impact of the LOSC on naval warfare is provided in the SAN REMO MANUAL, *supra* note 6, at 93.

*a. Coastal State Mining Activities*

A State may legitimately deploy naval mines in both its internal waters and territorial sea, but there would be a clear onus placed upon that State deploying the mines to ensure that such action does not result in damage to shipping that legitimately uses those sea areas.<sup>50</sup> Because foreign-flagged vessels have no right of passage through a State's internal waters (except for the right of non-suspendable innocent passage in archipelagic waters), any passage that is undertaken is at the discretion of the State. Within internal waters a State has sovereignty to conduct activities as it pleases with very few restrictions,<sup>51</sup> including, if it so desires, the deployment of naval mines.

In the territorial sea, the coastal State has duties<sup>52</sup> and rights<sup>53</sup> under the LOSC that would affect the deployment of naval mines, and vessels of foreign States do have a right of innocent passage.<sup>54</sup> In particular, if mines were deployed there would be questions regarding whether the actions of the State met the criteria stipulated in the LOSC for taking action "without discrimination in form or fact among foreign ships, [to] suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if . . . essential for the protection of its security, including weapons exercises."<sup>55</sup> If innocent passage is suspended, the suspension may take effect only after notification has been provided to international shipping by the coastal State.

If a State wished to deploy naval mines in areas outside its internal waters or territorial sea, then its ability to do so becomes more limited the farther the location is from its coast. The *San Remo Manual* notes that, during an armed conflict, such use of naval mines for a legitimate military purpose consistent with the rules of international humanitarian law is permissible.<sup>56</sup>

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50. It is noted there would be an analogous right of archipelagic States to deploy mines in their own archipelagic waters, subject to certain limitations in relation to archipelagic sea lane passage, but for reasons of simplicity this right will not be addressed in this section of this article.

51. One such restriction would be to ensure that the deployment of naval mines did not lead to a circumstance whereby fundamental human rights, such as the right not to be arbitrarily deprived of life, were breached.

52. LOSC, *supra* note 15, art. 24.

53. *Id.*, art. 25.

54. *Id.*, art. 17.

55. *Id.*, art. 25(3).

56. SAN REMO MANUAL, *supra* note 6, at 169.

This position is also reflected in several key national law of armed conflict handbooks.<sup>57</sup> Outside of an armed conflict, the position is more ambiguous. Delegates at the workshop which generated this forum were unclear whether the freedom of the high seas included a freedom to lay mines.

*b. Other States' Mining Activities in the Territorial Sea*

As noted earlier, the mining of another State's territorial sea in the period prior to an IAC would be a violation of Article 2(4) of the UN Charter. It would also be a violation of the LOSC since the right of vessels of a foreign State to passage through the territorial waters of another State is restricted to innocent passage and the deployment of naval mines during such passage would clearly not be "innocent."<sup>58</sup>

The right of innocent passage exists for all ships in the territorial sea, with the stipulation that this passage not be "prejudicial to the peace, good order or security of the coastal State."<sup>59</sup> LOSC Article 19(2) provides a list of such activities, including, *inter alia*:

- (a) any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;
- (b) any exercise or practice with weapons of any kind;
- (c) any act aimed at collecting information to the prejudice of the defence or security of the coastal State;
- ...
- (f) the launching, landing or taking on board of any military device.

Clearly, a vessel of a State that was engaged in either minelaying or mine clearing operations in the territorial sea of another State would not be able

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57. For example, the Australian law of armed conflict doctrine publication provides, "Mines may only be used in armed conflict at sea for legitimate military purposes, including the denial of sea areas to the enemy." Australian Manual, *supra* note 26, ¶ 6.27. Similar provisions exist in the equivalent U.S., UK and German publications. COMMANDER'S HANDBOOK, *supra* note 26, ¶ 9.23; UK MANUAL, *supra* note 26, ¶ 13.52 (2004); FEDERAL MINISTRY OF DEFENCE (German), HUMANITARIAN LAW IN ARMED CONFLICTS MANUAL, ¶ 379 (1st ed. 2002).

58. *See* LOSC, *supra* note 15, art. 19(2).

59. *Id.*, art. 19(1).

to claim that its passage in the territorial sea was innocent. This issue was also addressed in the *Corfu Channel* case.<sup>60</sup>

*c. Mining in International Straits and Archipelagic Sea Lanes*

Other provisions of the LOSC perhaps have greater significance. For example, in relation to straits used for international navigation and the regime of transit passage through such straits, Article 44 (and Article 54 in relation to archipelagic States) provides that “States bordering straits shall not hamper transit passage and shall give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge. There shall be no suspension of transit passage.” As States bordering straits are not permitted to hamper transit passage (or archipelagic sea lanes passage through archipelagic waters), the use of naval mines in such straits during an IAC would be unlawful if no provision was made for neutral vessels to access safe alternative routes that are of similar convenience. Indeed, this issue, although pre-dating the 1982 LOSC, was one of the matters raised by Albania during the *Corfu Channel* case.<sup>61</sup> There are practical issues involved in determining how such routes would be established, especially if mines are deployed by aircraft and/or by a State with limited capability to provide for safety of neutral vessels, but the obligation in IACs nevertheless remains extant.<sup>62</sup>

*d. Due Regard Requirements for Mining*

The final aspect of the LOSC that will be addressed is the requirement for States to have “due regard” to the rights of other States, as articulated in LOSC Article 87:

1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention *and by other rules of international law*. It comprises, inter alia, both for coastal and land-locked States:

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60. *Corfu Channel*, *supra* note 8.

61. *Id.*, especially at 27–31.

62. See SAN REMO MANUAL, *supra* note 6, at 174; ANNOTATED SUPPLEMENT TO THE COMMANDER’S HANDBOOK ON THE LAW OF NAVAL OPERATIONS 446 (A.R. Thomas & James C. Duncan eds., 1999) (Vol. 73, U.S. Naval War College International Law Studies); BUSUTTI, *supra* note 37, at 70–71.

- (a) freedom of navigation;
  - (b) freedom of overflight;
  - (c) freedom to lay submarine cables and pipelines, subject to Part VI;
  - (d) freedom to construct artificial islands and other installations permitted under international law, subject to Part VI;
  - (e) freedom of fishing, subject to the conditions laid down in section 2;
  - (f) freedom of scientific research, subject to Parts VI and XIII.
2. These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area.<sup>63</sup>

Although LOSC Article 88 provides “[t]he high seas shall be preserved for peaceful purposes,” it must be read in light of LOSC Article 87, both in terms of the applicability of “other rules of international law” (such as the law of naval warfare) and the requirement for “due regard” to be given to the rights of other legitimate users of the high seas. Accordingly, the deployment of naval mines on the high seas may not be used as a means of implicitly asserting sovereignty as this would directly contravene both LOSC Article 87 and the prohibition on the threat or use of force in Article 2(4) of the UN Charter.<sup>64</sup> High seas minefields must therefore be carefully limited to the military purpose for which they have been established.

2. 1954 Hague Cultural Property Convention (and its 1954 and 1999 Protocols)

Protection of cultural property during an IAC is an area that has emerged in importance in the period following the conclusion of the Second World War.<sup>65</sup> This emergence is most notably reflected in the entry into force of the 1954 Hague Cultural Property Convention and its two Protocols.<sup>66</sup>

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63. Emphasis added.

64. LOSC, *supra* note 15, art. 301 is also relevant.

65. See DOCUMENTS ON THE LAWS OF WAR, *supra* note 43, at 371–73, for a review of the historical background of the protection of cultural property in armed conflict that led to the 1954 Hague Cultural Property Convention being adopted.

66. Convention for the Protection of Cultural Property in the Event of Armed Conflict, May 14, 1954, 249 U.N.T.S. 240 [hereinafter Hague Cultural Property Convention]; Protocol for the Protection of Cultural Property in the Event of Armed Conflict, May 14,

A particular aspect of that Convention to be considered in terms of its application to the use of naval mines in IACs is the transportation of cultural property found in Chapter III. One of the obvious methods of transportation of cultural property is by sea, which raises the possibility that special responsibilities may arise for both a State that uses naval mines in an IAC and the State that transports cultural property once notification of a naval mine danger has occurred. These obligations would arise provided that the requirements specified in the Convention's annexed Regulations were followed.<sup>67</sup> In the case of a State seeking to deploy naval mines, there may be a scenario whereby the State might be prevented from such action if there has been notification that cultural property is being transported through a specified maritime area. Conversely, if a State has deployed naval mines and advised the location of the minefield, there may be an obligation on the State transporting cultural property by sea to avoid the area in which the minefield is located so that the cultural property being transported is not subject to the possibility of being damaged if the transporting vessel is struck by a mine.

There is also the possibility that a further special caution might need to be taken with underwater cultural property that would prevent a naval minefield being laid at all where there could be an effect on items that are underwater and fit within the definition of cultural heritage in the Underwater Cultural Heritage Convention.<sup>68</sup> However, in relation to the protection of sunken warships under that Convention, Roach notes there are considerable inconsistencies that arise.<sup>69</sup> Therefore, further legal analysis would be needed to determine whether mines can be deployed in a location where a sunken naval vessel is located.<sup>70</sup> This aspect is especially relevant in

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1954, 249 U.N.T.S. 358; Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict, Mar. 26, 1999, 2253 U.N.T.S. 212.

67. See Regulations for the Execution of the Convention for the Protection of Cultural Property in the Event of Armed Conflict, annexed to Hague Cultural Property Convention, *supra* note 66, arts. 17–19. See also the discussion *supra* Part III.C.1 with regard to the impact of the LOSC.

68. Convention on the Protection of the Underwater Cultural Heritage, Nov. 2, 2001, 2562 U.N.T.S. 3.

69. J. Ashley Roach, *Warships, Sunken*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶¶ 33–42 (2011), <http://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e444?rskey=B80QXA&result=1&prd=OPIL>.

70. *Id.*, where a comprehensive summary of the legal status of sunken warships can be found. See also ANNOTATED SUPPLEMENT, *supra* note 62, at 111–12. It is also noted that many States have enacted domestic legislation to protect sunken warships, for example,

circumstances where the sunken vessel is considered a war grave due to the presence of the bodies of deceased sailors in the vessel.

### 3. Environmental Considerations

Article 1 of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) provides that “[e]ach State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party.”<sup>71</sup> Article 2 provides “[a]s used in Article 1, the term ‘environmental modification techniques’ refers to any technique for changing—through the *deliberate manipulation of natural processes*—the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.”<sup>72</sup>

While it is difficult to envision any direct application of ENMOD to the use of naval mines in IACs in the context of known weapon capabilities, indirect consequences could create issues. Consider, for example, an environmental effect such as a tsunami or tidal wave caused by the explosion of a nuclear mine or a large number of conventional naval mines exploding simultaneously. The consequences of such an event could be catastrophic in terms of the effect on the land environment and, consequently, the civilian population. Although this example may seem somewhat far-fetched, one of the roles of those who plan and execute military operations is to consider not only the likely outcomes of their actions but also to contemplate some of the more obscure outcomes that may eventuate.

The protection of the marine environment is extensively dealt with in the LOSC<sup>73</sup> and is also addressed in AP I Article 35(3), which prohibits the employment of methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment. One example that might be considered in this context is

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the Historic Shipwrecks Act 1976 (Australia) and the Protection of Military Remains Act 1986 (United Kingdom).

71. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques 1108 U.N.T.S. 151.

72. Emphasis added.

73. The SAN REMO MANUAL, *supra* note 6, at 82, notes there are nearly fifty articles in the LOSC that deal with protection of the marine environment.



the use of naval mines in a manner that results in the destruction of a vital area of coral reef or an endangered marine species that was predominately located in a particular maritime area. The provisions of the LOSC that deal with the conservation of living resources in the exclusive economic zone (Articles 61–67 in particular) might be especially relevant in terms of the impact these provisions could have on the decision to deploy mines. While some may consider this issue to be improbable, in certain circumstances (such as where the potential depletion of an entire fish stock could occur), this aspect of the use of naval mines in an IAC might need to be factored into the planning process.

#### 4. 1980 Certain Conventional Weapons (CCW) Convention and Its Protocols

The CCW Convention consists of a framework convention<sup>74</sup> and five protocols.<sup>75</sup> Protocol II (1980) and Protocol II (Amended) (1996) deal with “prohibitions or restrictions on the use of mines, booby-traps and other devices” and therefore might be, at first glance, relevant to the use of naval mines in IACs. However, Article 1 of Protocol II provides, “[t]his Protocol relates to the use on land of the mines, booby-traps and other devices defined herein, including mines laid to interdict beaches, waterway crossings or river crossings, but does not apply to the use of anti-ship mines at sea or in inland waterways.”

In relation to the application of the CCW Convention to naval warfare at all, Levie states that “it should be obvious that the members of the Diplomatic Conference that drafted this Convention and its three Protocols intended to avoid completely the drafting of any rules applicable to maritime warfare and particularly to the use of mines in riverine or ocean warfare.”<sup>76</sup> Levie also notes that “sometimes commentators attempt to interpret the provisions of a convention directly contrary to the specifically expressed intentions of the drafters,”<sup>77</sup> which he uses as justification for in-

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74. Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, Oct. 10, 1980, 1342 U.N.T.S. 137 [hereinafter CCW Convention].

75. It is noted there were originally three protocols when the CCW was concluded in 1980.

76. LEVIE, MINE WARFARE AT SEA, *supra* note 6, at 137.

77. *Id.* at 138, 138 n.7, where Levie states that “the author [Rauch] argues that the 1977 Protocol I applies to naval warfare (in addition to its restrictions on naval attacks on

clusion of discussion regarding the CCW Convention in his book, including the claim that the Convention is “exclusively concerned with warfare on land.”<sup>78</sup> Another commentator has adopted a less rigid approach, noting the limitation on the application of Protocol II to land warfare, but suggesting that a number of the “provisions might be cited for analogous treatment for naval warfare,” such as the ban on the indiscriminate use of mines, restrictions on the use of mines in close proximity to civilian areas, the requirement for mines to be directed against military objectives and the need for warnings to be issued.<sup>79</sup>

So, returning to the perhaps vexing issue of whether there is scope for the CCW Convention, and in particular Protocol II, to have relevance to the use of naval mines in IACs, the question should be asked whether there is any merit in the suggestion that Protocol II would apply, for example, during a beach landing where amphibious vessels are not, *sensu stricto*, “at sea” since the vessel is temporarily not afloat.<sup>80</sup> This suggestion is not supported, as such a claim is not consistent with the clear language or intent of Protocol II.<sup>81</sup> In ordinary naval parlance, a vessel is “at sea” when it is not alongside a pier in port or at anchor in a harbor. This condition certainly applies to a vessel engaged in an amphibious operation where the reason for the vessel resting on the seabed forms part of its operational profile. Further support for this point of view can be obtained by considering the situation where a submarine is resting on the ocean floor while submerged. There can be no doubt that in this case; the submarine is not “at sea.”

Finally, for completeness, mention is made of the 1997 Ottawa Convention<sup>82</sup> only in so far as to emphasize that it deals with anti-personnel landmines only and therefore has no relevance to the use of naval mines at all.

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land objectives) despite the statements on [sic] the draftsmen, and the specific provisions of the Protocol, to the contrary,” referring to RAUCH, *supra* note 21, at 131.

78. *Id.*

79. George K. Walker, *State Practice Following World War II: 1945–1990*, in *THE LAW OF NAVAL WARFARE: TARGETING ENEMY MERCHANT SHIPPING* 121, 152 (Richard J. Grunawalt ed., 1993) (Vol. 65, U.S. Naval War College International Law Studies).

80. See BUSUTTIL, *supra* note 37, at 13.

81. In terms of the LOSC, it is noted that tidal range in the intertidal zone can affect where the “sea” lies in any given period so that at low tide an area might be void of water while at high tide the same area will be submerged.

82. Ottawa Convention, *supra* note 5.

## 5. Human Rights

A fundamental issue to consider in terms of IACs is the extraterritorial jurisdictional basis upon which international human rights law might apply.<sup>83</sup> In this regard, there are differences that exist among States.<sup>84</sup> For example, in the case of the United Kingdom, the issue was addressed recently in the UK Supreme Court, which followed the jurisprudence of the European Court of Human Rights<sup>85</sup> in recognizing that an extraterritorial application of human rights law can exist when a State “exercises authority and control over an individual”<sup>86</sup> outside the United Kingdom. By way of contrast, the United States’ view is that “most human rights treaties apply to persons living in the territory of the United States, and not to any person with whom agents of our government deal outside of our borders.”<sup>87</sup> It is therefore possible that if two States deploy naval mines in an area of the high seas during an IAC, one of those States may have to consider the application of human rights law in relation to both its own forces and others that might be affected by the mines, while the second State might not have the same obligations.

At the macro level, the 1966 International Covenant on Civil and Political Rights (ICCPR)<sup>88</sup> has general application to the use of naval mines in IACs in terms of the stipulation in Article 6 that “[e]very human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life.” In times of armed conflict, this right continues to exist, however, it must be interpreted through the lens of LOAC, the *lex specialis*. Thus, as noted by the ICJ, “whether a particular loss

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83. There is an extensive corpus of academic work that deals with the issue of whether, and to what extent, human rights law applies during IACs, especially the nature of the law of armed conflict as *lex specialis*. See, e.g., DINSTEIN, *supra* note 6, at 19–26. For present purposes it is not necessary to explore that issue.

84. See Noam Lubell, *Challenges in Applying Human Rights Law to Armed Conflict*, 87 INTERNATIONAL REVIEW OF THE RED CROSS 737, 739–41 (2005).

85. See, e.g. Al-Skeini and Others v. United Kingdom, App. No. 55721/07, Eur. Ct. H.R. (2011), available at <http://www.bailii.org/eu/cases/ECHR/2011/1093.html>.

86. Smith and Others v. The Ministry of Defence, [2013] UKSC 41, especially ¶¶ 49–50.

87. INTERNATIONAL AND OPERATIONAL LAW DEPARTMENT, U.S. ARMY JUDGE ADVOCATE GENERAL’S LEGAL CENTER AND SCHOOL, OPERATIONAL LAW HANDBOOK 51–52 (2013), available at [http://www.loc.gov/rr/frd/Military\\_Law/pdf/operational-law-handbook\\_2013.pdf](http://www.loc.gov/rr/frd/Military_Law/pdf/operational-law-handbook_2013.pdf).

88. International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171.

of life, through the use of a certain weapon in warfare, is to be considered an arbitrary deprivation of life contrary to Article 6 of the Covenant, can only be decided by reference to the law applicable in armed conflict and not deduced from the terms of the Covenant itself.”<sup>89</sup> Therefore, the employment of naval mines would be precluded in an IAC if such use did not discriminate between legitimate military targets and civilian personnel or objects in a manner that complements prohibitions under the LOAC. Unsurprisingly, in a convention that is focused on fundamental human rights, there is no specific application of the ICCPR to naval mines in IACs, but the general principle is applicable.

In terms of judicial decisions, the *Al-Skeini* case<sup>90</sup> has seen a broadening of the definition of “effective control” that has been deemed to trigger the application of the European Convention of Human Rights (ECHR) in armed conflicts for European Union participants.<sup>91</sup> There are, of course, many circumstances in which parties to an IAC laying naval mines offensively outside their own territory would not be exercising effective control so as to prompt the application of the ECHR. However, those States that are bound by the ECHR and which lay defensive minefields within their own territorial waters, are likely to fulfill the effective control criteria, and therefore need to consider whether their actions are in accordance with European human rights standards. It is not suggested that the principle that arose from *Al-Skeini* forms part of customary international law, or otherwise applies to States that are not subject to the ECHR, but nevertheless the decision represents another step along the way of growing human rights jurisprudence that influences (some might say dangerously) action in IACs.<sup>92</sup>

Finally in relation to human rights, it might simply be the case that application of “elementary considerations of humanity” to the use of naval

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89. *Nuclear Weapons*, *supra* note 28, ¶ 25.

90. *Al-Skeini and Others*, *supra* note 85.

91. For a discussion of “effective control” in the context of extraterritorial applicability of human rights law, see Lubell, *supra* note 84, at 739–41.

92. See Naz Modirzadeh, *The Dark Sides of Convergence: A Pro-civilian Critique of the Extraterritorial Application of Human Rights Law in Armed Conflict*, in *THE WAR IN IRAQ: A LEGAL ANALYSIS* 349, 398–400 (Raul A. “Pete” Pedrozo ed., 2010) (Vol. 86, U.S. Naval War College International Law Studies), available at <https://www.usnwc.edu/getattachment/fb4a9e99-55ca-486f-bd95-c5d4a232528f/The-Dark-Sides-of-Convergence--A-Pro-civilian-Crit.aspx>.

mines in an IAC provides sufficient basis to ensure that basic human rights are respected.<sup>93</sup>

#### 6. International Criminal Law

One issue that has not been examined in any detail is the potential international criminal law consequences that may arise out of the use of naval mines in IACs. It is not difficult to envision uses that may, just as is the case with any other area of the law of armed conflict, contravene applicable law. In the most extreme cases, naval mines could be used in a manner that would constitute a grave breach of one of the 1949 Geneva Conventions or AP I. For example, if naval mines are deployed in a manner that is indiscriminate with the result that “wilful” killing of civilians is alleged to have occurred, this might be cause for an action to deal with a grave breach of Article 147 of the Fourth Geneva Convention.<sup>94</sup>

Similarly, in terms of command responsibility, the use of naval mines in a manner that shows a blatant disregard for the responsibilities that are placed on a commander when planning and executing a military operation may find that commander being prosecuted for any consequential LOAC breach committed by forces under his/her command. For example, if mines are deployed so that the probability of targeting a military objective is extremely low (such as being laid in a harbor where there are no warships ordinarily stationed), but the probability of targeting vessels carrying civilians is high (due to the use of ferries for regular commuter traffic in a busy harbor), their use likely would not comply with LOAC requirements.

#### IV. CONCLUSION

The theme that emerges from this article is that there is no contemporary legal challenge to the use or existence of naval mines per se as evidenced by the three key ICJ decisions<sup>95</sup> that have examined circumstances involving the use of naval mines; in none was there any assertion that the use of na-

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93. See Dale G. Stephens & Mark D. Fitzpatrick, *Legal Aspects of the Contemporary Naval Mine Warfare*, 21 LOYOLA OF LOS ANGELES INTERNATIONAL AND COMPARATIVE LAW REVIEW 553, 579 (1999).

94. Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, 6 U.S.T. 3516, 75 U.N.T.S. 287.

95. The three ICJ decisions are those in the *Corfu Channel*, *Nicaragua* and *Oil Platforms* cases. See *supra* notes 8–10.

val mines is manifestly unlawful in all circumstances. Rather, there are considerations that arise from the type of mine that is used (for example, a nuclear naval mine) and the method in which naval mines are employed in international armed conflict. Violations of the laws of armed conflict can arise as a consequence of deficiencies in either case, and those involved in international armed conflict must contemplate how their activities can be legitimately conducted in a way that does not result in breaches of the law. It is important to keep in mind, however, that there is an inherent risk that during IACs mistakes will inadvertently occur, and these can sometimes be the result of completely unforeseen events that even the most prudent level of planning could not predict or prevent.

The key principles that are stipulated in Hague VIII concerning the manner in which automatic submarine contact mines may be used have transcended into customary international law in relation to the use of all naval mines, regardless of the type of device that is actually deployed. However, it has already been seen that Hague VIII provides a very limited rule set. It is clear from the foregoing analysis that separate customary law rules of IAC, as well as broader international (and, possibly, domestic) legal considerations, operate to restrict the use of mines in circumstances where Hague VIII was silent.

While it might be preferable to have a contemporary treaty governing the use of all types of naval mines for the sake of being able to refer to a clear legal regime that is relevant to the twenty-first century, the impact of customary international law and “other legal limits” on the use of naval mines in international armed conflict provide a far more robust regime governing naval mine warfare than might be gleaned from an analysis of Hague VIII alone.