Weapons Law as It Applies to Nuclear Weapons

In this Section we consider the application of the law of weaponry to nuclear weapons. At the outset, however, three qualifications are called for. First, in the opinion of many commentators, nuclear weapons are inherently unlawful, notwithstanding the application of particular weapons law rules. Second, such weapons have been the subject of an ICJ Advisory Opinion, discussed below in Section J, which acknowledged that their threat or use is likely to be unlawful in most circumstances. Third, a convention has been adopted, in the form of an arms control treaty, that, for participating States, will prohibit the use, possession, stockpiling and transfer of, and other activities associated with, such weapons; the convention's provisions will be examined in Section K. So it is against the background of these three qualifications that in this Section we consider how the principles and rules of weapons law apply to nuclear weapons.

There are important customary and treaty law rules that should be considered when making that assessment. Accordingly, our focus is on the law that applies to the means and methods of nuclear warfare (i.e. to the weapons and to the generic ways in which they would potentially be used), not on the law that regulates any particular intended, threatened or actual use of them. The latter aspect is addressed by the law of targeting and has been summarised in Section E.

It will be appreciated that weapons law includes numerous rules, some of which will have no relevance to nuclear weapons, and such irrelevant material has therefore been omitted from the present Section. The Section starts by considering the customary principles of weapons law, then addresses rules of general application and thereafter looks at compliance with weapons law, including the rules as to legal review of new means and methods of warfare. Treaties and other international arrangements that are

concerned with arms reduction, or with the kinds or numbers of relevant weapons or platforms that a State is permitted to have or deploy, are briefly noted in Section K.

Means and Methods of Nuclear Warfare

Rule 69

For the purposes of this book, a 'means of nuclear warfare' comprises a nuclear weapon and its associated systems, whereas a 'method of nuclear warfare' consists of the tactics, techniques and procedures whereby nuclear hostilities are conducted.

- 1 The term 'means of warfare' refers to weapons and weapon systems. For the purposes of this Section, a weapon is an object, device or mechanism that is used, intended to be used or designed to be used to cause damage to an object and/or injury to a person in connection with an armed conflict. Accordingly, a nuclear means of warfare consists of the nuclear warhead, its delivery mechanism and all associated equipment and supporting systems that are required for the operation of the nuclear weapon. Typically, a nuclear weapon, in contrast to a nuclear means of warfare, will consist of the warhead and the other elements of the missile, rocket or bomb on board the weapon, including its fuel and the propulsion, guidance and associated equipment. The supplementary, off-board control and other systems that enable the nuclear weapon to perform its function will be the remaining parts of the nuclear means of warfare.
- 2 Methods of nuclear warfare consist of the ways in which nuclear hostilities are conducted and are distinct from the nuclear weapons and associated systems. Thus, while a specific short- to medium-range, limited-yield tactical nuclear weapon, together with its operating systems, would be a means of warfare, tactical, battlefield nuclear strike would be a method of warfare.
- 3 An important question arises in relation to the range of activities that States may undertake with regard to nuclear weapons. Not all such activities will necessarily qualify as methods of warfare. A threat to use a nuclear weapon during and in connection with an armed conflict, with the purpose of persuading the enemy to act, or refrain from acting, in a particular way, will so qualify. The maintenance in peacetime of a nuclear deterrent capability will not amount to a nuclear method of warfare, because no armed conflict is under way and because passive deterrence lacks a sufficient link with active hostilities. It should, however, be noted that acts that do not amount to nuclear attacks, as that term is defined in Rule 29, may nevertheless constitute methods of nuclear warfare.

Choice of Method and Means Not Unlimited

Rule 70

In any armed conflict, the right of the parties to the conflict to choose methods or means of nuclear warfare is not unlimited.

1 This Rule is based on Article 22 of the Hague Regulations and on Article 35(1) of API. It is a principle of the law of armed conflict (LOAC) that applies in international and non-international armed conflicts and that has customary law status. ¹ It therefore binds all States.

- 2 The Rule implicitly recognises that there are different kinds of nuclear weapon and that the potential use of such a weapon may fall to be considered in diverse circumstances. The principle shows that it is international law that specifies that there are limits, the most stringent imaginable limits, on when such weapons may be employed, and indeed it is international law that determines what those limits are.
- 3 The limits on lawful use referred to in the previous paragraph may derive from general weapons law rules, from the application of targeting law rules or from weapons law rules specifically applicable to nuclear weapons.

Superfluous Injury and Unnecessary Suffering

Rule 71

It is prohibited to employ weapons, including nuclear weapons, that are of a nature to cause superfluous injury or unnecessary suffering.

1 This Rule has its origins in the preamble to the St Petersburg Declaration of 1868, subsequently developed in Article 23(e) of the Hague Regulations of 1899 and 1907. Its modern formulation, which is reflected in this Rule, is set forth in Article 35(2) of API. It is a LOAC principle that applies in both international and non-international armed conflicts. The principle has customary law status and therefore binds all States.²

- 2 The principle builds on the preceding principle embodied in Rule 70. It recognises that the infliction of injury and suffering is not inevitably unlawful. Injury or suffering may be necessary in order to achieve the
- The International Court of Justice noted that 'the established principles and rules of humanitarian law applicable in armed conflict' are imbued with an 'intrinsically humanitarian character ... which permeates the entire law of armed conflict and applies to all forms of warfare, those of the past, those of the present and those of the future'. ICJ Nuclear Opinion, para. 86.
- ² ICJ Nuclear Opinion, para. 78.

legitimate purpose of the armed conflict (i.e. the defeat of the enemy at the earliest possible moment with the minimum expenditure of life and resources). Nevertheless, a weapon or the method of using a weapon will be unlawful if it is of a nature to occasion additional injury or suffering for which there is no corresponding military purpose. This aspect is reflected in the use of the comparatives 'superfluous' and 'unnecessary'.

- 3 The practical application of the principle involves a consideration of alternative methods of achieving the generic kind of military advantage or military purpose for which the weapon will typically be used. All weapons can be misused in order to increase the amount of injury and/or suffering. The principle reflected in the present Rule is concerned with the degree of injury and/or suffering that is the inevitable consequence of the employment of the weapon in its intended or designed circumstances of use.
- 4 The fact that, when used as intended, a weapon will inevitably occasion the most serious injuries and/or the most grave suffering does not, per se, render such a weapon unlawful. If the generic purpose of that weapon is to achieve a military advantage of the greatest importance and if no alternative weapon exists that would achieve a similar generic military advantage while occasioning less injury and/or suffering, then the weapon system in question might comply with the principle.
- 5 Applying the principle to a nuclear weapon will involve the most careful application of these considerations. It would be legally wrong to assume that a nuclear weapon would necessarily breach the principle. It would, however, be likely to do so in most potential uses, and a weapon review of the kind referred to in Rule 75 should clearly articulate the circumstances in which its employment would not be legally permissible.

Applying the Indiscriminate Weapons Rule to Nuclear Weapons Rule 72

It is prohibited to employ nuclear weapons that are indiscriminate by nature.

1 This Rule is based on Article 51(4)(b) and (c) of API. The prohibition of indiscriminate attacks is set forth in the first sentence of Article 51(4) of API. The present Rule is now recognised as a principle of customary international law that binds all States in respect of non-nuclear weapons and that applies in both international and non-international armed conflicts

- 2 Sub-paragraphs (b) and (c) of Article 51(4) include within the definition of indiscriminate attacks the use of weapons and methods of warfare that cannot be directed at a specific military objective, or the effects of which cannot be limited as required by the Protocol, and which, in either such case, are of a nature to strike civilians, civilian objects and military objectives without distinction. These provisions have explicit application to weapons and methods of warfare and form the basis of the current Rule. The focus of these customary provisions, and of the Rule, is on the lawfulness of the weapon as such, not on whether a particular attack is indiscriminate.
- 3 It follows that, in any assessment of the lawfulness of a weapon (including a nuclear weapon), its ability, or otherwise, to engage a specific military objective and the feasibility of limiting its effects to such a military objective will be key considerations. This will involve a careful evaluation of each of the damaging and injurious effects of the weapon, including but not limited to: the extent of the blast effect and the degree of damage and injury likely to be caused by it; the quantity of nuclear fallout its detonation may be expected to generate; the likely spread of the damaging material; the likely effect of the damaging material on human health; whether the damaging/injurious effects can be limited or directed; and for how long the damaging/injurious effects will persist after the use of the weapon.
- 4 It follows that this Rule must be applied with great care when evaluating any nuclear weapon system. The NATO States that made nuclear statements of the kind referred to in the Commentary accompanying Rule 64 may consider that those statements apply to the present Rule, as the provisions reflected in Article 51(4)(b) and (c) had not been articulated as rules of law before the adoption of API in 1977. States adopting that view would regard sub-paragraphs 4(b) and (c) of Article 51 as constituting new rules introduced by API to which the nuclear statements made by those NATO States would apply. Accordingly, for such States, the present Rule would not apply to nuclear weapons. For States that are parties to API and that made no such statement when ratifying the treaty, the present Rule does apply to nuclear weapons. For all States, the prohibition of indiscriminate attacks, reflected in Rule 37, applies to all attacks, including nuclear attacks. So, while the weapons law point discussed in this paragraph may be legally interesting, it does not alter the fact that an indiscriminate nuclear attack will breach Article 51(4) and customary law.

The Natural Environment and Nuclear Weapons

Rule 73

A When employing nuclear means or methods of warfare, due regard should be had to the natural environment.

B It is prohibited for States that are parties to Additional Protocol I to use nuclear means or methods of warfare that are intended or that may be expected to cause widespread, long-term and severe damage to the natural environment.

C It is prohibited for States that are parties to the ENMOD Convention to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of causing destruction, damage or injury to any other State that is a party to the

1 Lit. A of this Rule reflects the current state of customary law.³ The word 'should' shows that the Rule represents best practice. It applies in both international and non-international armed conflicts. Having 'due regard' means that, when deciding on the acquisition as well as on the use of nuclear weapons, a State should take into account the impact of nuclear weapons, of nuclear weapon systems and of ways of undertaking nuclear hostilities. They should also incorporate environmental concerns into their policies and doctrine concerning nuclear weapons.

2 In this connection, it should be borne in mind that the natural environment is, in principle, a civilian object that must not be made the object of attack, and that incidental damage to it should be taken into account when the proportionality rule is being applied.

3 The term 'natural environment' is not defined in any LOAC provision. The UN Environmental Modification Convention refers to 'the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere, and atmosphere, or of outer space'. The present authors take the view that the *lex lata* interpretation of the natural environment includes the elements referred to in the ENMOD definition with the exception of outer space.

4 Lit. B is based on Articles 35(3) and 55 of API. It applies to States that are parties to API. However, a number of States ratified the treaty subject to declarations that excluded nuclear weapons from the scope of application of

³ AMW Manual, Rule 89 and accompanying Commentary.

⁴ Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, Geneva, 2 September 1976 (ENMOD Convention), Article II.

the new rules adopted in the treaty. Those new rules included Articles 35(3) and 55 of API. Accordingly, Lit. B will not apply to States that are parties to API and that made, and continue to be bound by, such a statement.

5 The terms 'widespread, long-term and severe' are cumulative (i.e. all three characteristics must apply for the Rule to be breached). The treaty text does not define the three criteria. The API Commentary observes that during the Diplomatic Conference that adopted the treaty long-term 'was considered by some to be measured in decades. Some representatives referred to twenty or thirty years as being a minimum period. Others referred to battlefield destruction in France in the First World War as being outside the scope of the prohibition.' The Commentary goes on to note that '[w]hat the article is primarily directed to is thus such damage as would be likely to prejudice, over a long term, the continued survival of the civilian population or would risk causing it major health problems'.⁵

6 It follows that Lit. B is breached only if the environmental damage is very serious. Consider, for example, a nuclear weapon that, when used as designed, can be expected to spread contaminating radiation over a wide area. If the contamination is of a sort that will persist over several decades, rendering the affected territory unusable by local populations, Lit. B is likely to be breached. However, the Rule refers to the expected or intended consequences of the attack. If the three criteria, or any one of them, is neither intended nor reasonably expected, Lit. B will not be breached.

7 The application of the rules in Lit. A and Lit. B can be summarised as follows: if a State is not a party to API, only Lit. A will apply; if a State is a party to API but made a nuclear statement, only Lit. A will apply; if a State is a party to API and did not make a nuclear statement, that State must apply both Lits. A and B when deciding on the acquisition or use of a nuclear weapon.

7 Lit. C is based on Article I(1) of the ENMOD Convention, which is not reflective of customary international law and therefore binds only those States that are parties to it.

8 Article II of the ENMOD Convention defines the term 'environmental modification techniques' as referring 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'. In short, the ENMOD Convention prohibits the use of the modified natural environment as a means of warfare (i.e. as a weapon). Arguably, the prohibition applies, for example, to the use of a nuclear device for the purpose of initiating an earthquake and/or a tsunami.

⁵ API Commentary, para. 1454.

Treaty on the Prohibition of Nuclear Weapons

Rule 74

States that are parties to the Treaty on the Prohibition of Nuclear Weapons must comply with the rules set forth in that treaty.

The provisions of the Treaty on the Prohibition of Nuclear Weapons are discussed in Section K.

Legal Review of Nuclear Weapons

Rule 75

A All States have an implied obligation to make sure that the nuclear weapons they acquire or use comply with the rules of international law that bind that State.

B States that are parties to Additional Protocol I are obliged, as part of the study, development, acquisition or adoption of a new means or method of nuclear warfare, to determine whether its employment would, in some or all circumstances, be prohibited by the Protocol or by any other rule of international law applicable to that State.

1 As to the meaning of weapons, means and methods of warfare, see Rule 69 and the accompanying Commentary. States that are not parties to API have an implied obligation to determine whether new nuclear or other weapons that they acquire or use comply with the international law rules that bind the State. Regrettably, there is insufficient compliance with this international law requirement to demonstrate a general practice of States. Accordingly, it cannot be said that there is a customary law rule. The requirement to conduct weapon reviews is, however, implied by the general obligation to comply with LOAC set forth in Article 1 common to the Geneva Conventions.⁶

2 The weapon review ought properly to be the subject of a detailed, formal assessment and will typically be prepared in writing and submitted to the military authorities responsible for the procurement of the weapon in question. The weapon review will consider the characteristics of the weapon; the generic circumstances of its intended use; the kinds of target it is anticipated the weapon will be used to engage; the expected effects of the weapon; the area

⁶ Consider also API, Article 36; Convention Respecting the Laws and Customs of War on Land, The Hague, 18 October 1907 (Hague IV Convention), Article 3, second sentence; US DoD Law of War Manual, para. 6.2; UK Manual, paras 6.20–6.20.1; Canadian Manual, para. 530; German Manual, para. 405; AMW Manual, Rule 9; Tallinn Manual 2.0, Rule 110(a); and the mandatory terms in which weapons treaty obligations are expressed.

of its expected effects; the impact of the weapon on persons, objects and the natural environment; and all other relevant factors and details. The weapon review will apply the superfluous injury/unnecessary suffering principle; the indiscriminate weapons principle; LOAC environmental protection rules; and any weapons law rules that apply to nuclear weapons and that bind the State in question. The weapon review will identify whether the weapon's use would, in some or all circumstances, breach the international law obligations of the State.

3 Lit. B is based on Article 36 of API. It is a treaty law obligation that applies to all States that are parties to API. It goes beyond the obligation in Lit. A in that a legal review is required when the weaponisation of a nuclear technology is being studied and when a nuclear weapon system is being developed, as well as when a new nuclear weapon is being acquired. In addition, the treaty provision requires a review to be conducted when a new method of warfare is being adopted. Article 36 does not specify a particular procedure, system or technique for the conduct of such reviews, nor does it specify the form — written or oral — that the results of the review should take. However, a review of a new nuclear weapon or method of nuclear warfare should contain a detailed written assessment of all relevant legal aspects.

4 The fact that State A has already conducted a legal review of a nuclear weapon that it is supplying to State B does not exempt State B from its obligation to conduct its own review, applying the international law rules that bind State B.

Reprisals

Rule 76

Unless prohibited by conventional or customary law, a party to an international armed conflict may resort to reprisals in response to a prior violation of the law of armed conflict by the adversary, in order to induce the adversary to comply with its obligations under the law of armed conflict. A reprisal may not exceed the degree of the wrongful conduct it is designed to correct.

1 This Rule deals with reprisals in times of international armed conflict. On countermeasures taken in times of peace, see Rule 7 and the accompanying Commentary.

2 A reprisal is 'a response to an enemy's violation of the laws of war which would otherwise be a violation on one's own side'. 7 In other words, it is an act that would

⁷ United States of America v. William List et al. (The Hostage Case), Military Tribunal V, Judgment of 19 February 1948, in Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10, vol. XI (1950), 1230, 1248.

otherwise be unlawful were it not taken in response to a prior violation of LOAC by the adversary. Reprisals may not be taken in revenge or for punitive purposes; they may only serve the purpose of inducing the enemy to desist from violations of LOAC. Accordingly, a reprisal is a means of enforcing compliance with LOAC.⁸

3 A reprisal must not be confused with a retorsion. The latter consists of an act that is lawful but unfriendly, taken in response to prior conduct of another State. Accordingly, a reprisal by necessity involves a conduct that would be in violation of a given obligation under LOAC. A reprisal could therefore imply the use of a prohibited weapon or the unlawful use of a lawful weapon. For instance, the use of an illegal weapon could qualify as a reprisal if the enemy employs an unlawful weapon against a State party to the conflict and if the victim State, by way of reprisal, resorts to the use of a weapon which would be illegal for that State under either conventional or customary law. In this context, it is important to re-emphasise that nuclear weapons are not prohibited per se, other than for States that are parties to the Treaty on the Prohibition of Nuclear Weapons. Therefore, the employment of a nuclear weapon in response to prior unlawful conduct by the adverse party to an international armed conflict does not constitute a violation of LOAC, and the question of reprisals does not arise. As regards the use of a nuclear weapon, it may, however, qualify as a reprisal if that use is in violation of the rules and principles of targeting law and if it is designed to induce the adversary to cease the use of an illegal weapon or some other violation of LOAC.

4 Because reprisals involve a violation of LOAC, they are 'extreme measures to enforce compliance with the law of armed conflict' and, therefore, subject to the following conditions: 10

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careful inquiry that reprisals are justified; exhaustion of other means of securing the adversary's compliance with the law of war; national-level authorisation for reprisal; proportionality in reprisal; and public announcement of reprisals.
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⁸ US DoD Law of War Manual, para. 18.18; UK Manual, para. 16.16; German Manual, paras. 488ff., 1528.

⁹ UK Manual, para. 16.16.

US DoD Law of War Manual, para. 18.18. See also UK Manual, para. 16.17; German Manual, paras. 488, 489, 1528.

5 The requirement of proportionality has for a long time been a recognised condition under customary law. According to the US Military Tribunal in Nuremberg, 'it is a fundamental rule that a reprisal may not exceed the degree of the criminal act it is designed to correct'. Accordingly, and as rightly stated in the UK Manual, a 'reprisal must be in proportion to the original violation. Whilst a reprisal need not conform in kind to the act complained of, it may not significantly exceed the adverse party's violation either in degree or effect. Effective but disproportionate acts cannot be justified as reprisals on the basis that only an excessive response will forestall further violations. Hence, the unlawful use of a nuclear weapon may be justified as a reprisal if its effects are commensurate with the violation suffered and if the prohibitions of certain reprisals are observed.

6 There is general agreement that reprisals, while generally permissible, may never be directed against:

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the wounded, sick and shipwrecked;
medical personnel and chaplains;
medical units, establishments and transports;
prisoners of war;
protected persons and their property.<sup>14</sup>
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In the light of the practice during the two World Wars,¹⁵ these prohibitions are to be considered a major accomplishment brought about by the four 1949 Geneva Conventions.¹⁶ Accordingly, any reprisal, whether by conventional or nuclear weapons, against the persons and objects listed in this paragraph is impermissible.

- See Naulilaa Arbitration (Portugal v. Germany), Special Arbitral Tribunal, Award of 31 July 1928, (1927–8) 4 Annual Digest of Public International Law Cases 526.
- USA v. List, supra n. 7.
- ¹³ UK Manual, para. 16.17. See also US DoD Law of War Manual, para. 18.18.2.4.
- ¹⁴ UK Manual, para. 16.18.
- For instance, unrestricted submarine warfare and the establishment of war zones were justified as reprisals. Until the end of World War II, there was no prohibition of the execution of 'reprisal prisoners' in response to prior violations by the adversary. The US Military Tribunal in Nuremberg held that the right of 'killing ... innocent members of the population as a deterrent to attacks upon its troops and acts of sabotage ... has been recognized by many nations There has been complete failure on the part of the nations of the world to limit or mitigate the practice by conventional rule.' USA v. List, supra n. 7, at 1251. Accordingly, List and others were not held criminally responsible for having executed 'reprisal prisoners'. They were convicted because the reprisal prisoners had not been taken from areas where illegal acts had occurred and because the number of killed reprisal prisoners clearly exceeded the violation of the law of war by the enemy.
- For reprisals prohibited under the Geneva Conventions, see GCI, Article 14; GCII, Article 16; GCIII, Article 13; GCIV, Article 23.

7 The categories of persons and objects against whom reprisals are prohibited have been extended by API.¹⁷ The API provisions on prohibited reprisals are not reflective of customary international law.¹⁸

8 In declarations made when ratifying API, some States reserved their right to resort to reprisals that would otherwise be prohibited under API. They include France¹⁹ and Germany.²⁰ The clearest statement to that effect is the UK declaration, which reads as follows:²¹

The obligations of Articles 51 and 55 are accepted on the basis that any adverse party against which the United Kingdom might be engaged will itself scrupulously observe those obligations. If an adverse party makes serious and deliberate attacks, in violation of Article 51 or Article 52 against the civilian population or civilians or against civilian objects, or, in violation of Articles 53, 54 and 55, on objects or items protected by those Articles, the United Kingdom will regard itself as entitled to take measures otherwise prohibited by the Articles in question to the extent that it considers such measures necessary for the sole purpose of compelling the adverse party to cease committing violations under those Articles, but only after formal warning to the adverse party requiring cessation of the violations has been disregarded and then only after a decision taken at the highest level of government. Any measures thus taken by the United Kingdom will not be disproportionate to the violations giving rise thereto and will not involve any action prohibited by the Geneva Conventions of 1949 nor will such measures be continued after the violations have ceased. The United Kingdom will notify the Protecting Powers of any such formal warning given to an adverse party, and if that warning has been disregarded, of any measures taken as a result.

- ¹⁷ API, Articles 51(6), 52(1), 53(c), 54(4), 55(2), 56.
- ¹⁸ See US DoD Law of War Manual, para. 18.18.3.4.
- Declaration made by France on 11 April 2001 when ratifying API, para. 11: 'Le gouvernement de la République Française déclare qu'il appliquera les dispositions du paragraphe 8 de l'article 51 dans la mesure où l'interprétation de celles-ci ne fait pas obstacle à l'emploi, conformément au droit international, des moyens qu'il estimerait indispensables pour protéger sa population civile de violations graves, manifestes et délibérées des Conventions de Genève et du Protocole par l'ennemi.' Available at: https://ihl-databases.icrc.org/applic/ihl/dih.nsf/Notification.xsp? action=openDocument&documentId=DD316843AC252366C1256A3400487E4C.
- Declarations made by Germany on 14 February 1991 when ratifying API, para. 6: "The Federal Republic of Germany will react against serious and systematic violations of the obligations imposed by Additional Protocol I and in particular its Articles 51 and 52 with all means admissible under international law in order to prevent any further violation." Available at: https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Notification.xsp?action=openDocument&documentId=3F4D87o6B6B7EA4oC12564o2003FB3C7.
- Declaration of 28 January 1998 made on ratification, available at: www.icrc.org/en/doc/resources/documents/article/other/57jp54.htm.

Accordingly, reprisals, including by the use of nuclear weapons, taken in accordance with the declaration are permissible by and against the United Kingdom if and to the extent that the above conditions are observed.

9 For the States that are parties to the Amended Protocol II to CCW and have not entered a reservation, it is 'prohibited in all circumstances to direct mines, booby-traps, and other devices, either in offense, defense or by way of reprisals, against the civilian population as such or against individual civilians or civilian objects.'²²

Amended Protocol II to CCW, Article 3(7).