

GREENPEACE

THE UNITED KINGDOM'S NUCLEAR DETERRENT: CURRENT AND FUTURE ISSUES OF LEGALITY

OPINION

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INTRODUCTION

1. We are asked to advise Greenpeace on the following issues relating to the United Kingdom's Trident nuclear deterrent (Trident):
 - i) The compatibility with international law, in particular the *jus ad bellum*, international humanitarian law ('IHL') and Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons ('NPT'), of the current UK strategy on the use of Trident. In particular, the use, or threat of use, of nuclear weapons against non-nuclear states in order to deter attacks against 'vital interests', including UK forces overseas threatened with chemical or biological weapons;
 - ii) The compatibility with IHL of deploying the current Trident system;
 - iii) The compatibility with IHL and Article VI NPT of the following options for replacing or upgrading Trident:
 - (a) Enhanced targeting capability;
 - (b) Increased yield flexibility;
 - (c) Renewal of the current capability over a longer period.
2. We are asked to advise on these issues in the context of the current international debate on nuclear non-proliferation, including in particular North Korea and Iran. The UK has indicated that the future of Trident may depend on the outcome of the Iranian situation.¹ It supported UN Security Council Resolution 1696, of 31 July 2006, in which the UNSC expressed its intention to use Chapter VII measures against Iran to enforce the requirements of the Resolution and of the IAEA, should compliance not be forthcoming. Politically, therefore, it may be of particular importance that the UK is seen to be adhering to its obligations under the NPT, including in particular those relating to Article VI.²
3. The common theme throughout this opinion is the nature and extent of the obligations under the *jus ad bellum*, IHL, and Article VI NPT. For clarity, we have explained our understanding of these obligations at the outset of this opinion, before considering the specific issues on which we are asked to advise. We also want to make clear that any final opinion we express will necessarily depend on the precise facts. For obvious reasons these cannot be available to us at this time.

¹ 'Trident's future "linked to Iran"', BBC News, 11 October 2005, quoting Foreign Officer Minister Kim Howells, available at <http://news.bbc.co.uk/1/hi/uk/4331882.stm> .

² The legal ramifications of a state's non-compliance with its obligations under the NPT, in particular where it is in material breach, are considered in abstract at paragraph 33, below.

SUMMARY OF ADVICE

4. In our opinion, and for the reasons we set out below:

- i) The use, or threat of use, of nuclear weapons in self-defence will be unlawful under the *jus ad bellum* where it fails to meet the requirements of necessity and proportionality. Where their use is contemplated in response to a threatened rather than actual attack, the additional requirement of imminence must be fulfilled. Given the devastating consequences inherent in the use of the UK's current nuclear weapons, we are of the view that the proportionality test is unlikely to be met except where there is a threat to the very survival of the state. In our view, the 'vital interests' of the UK as defined in the *Strategic Defence Review* are considerably broader than those whose destruction threaten the survival of the state. The use of nuclear weapons to protect such interests is likely to be disproportionate and therefore unlawful under Article 2(4) of the UN Charter.
- ii) It is difficult to conceive of any circumstances in which the use of nuclear weapons in self-defence to deter future chemical or biological attacks on UK forces overseas could be proportionate and therefore lawful. In particular, the use of nuclear weapons in the context contemplated in 2002 by Mr Hoon in relation to Iraq would, on the facts available, be unlawful.
- iii) We find it hard to envisage any scenario in which the use of Trident, as currently constituted, could be consistent with the IHL prohibitions on indiscriminate attacks and unnecessary suffering. Further, such use would be highly likely to result in a violation of the principle of neutrality.
- iv) Article VI of the NPT places an obligation on all state parties '*to achieve a precise result, nuclear disarmament in all its aspects, by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith.*'³ Article VI is a provision essential to the accomplishment of the object of the NPT, nuclear disarmament, breach of which will be material. Acts or omissions which render nuclear disarmament remote or impossible, or which undermine its attainment, will be inconsistent with Article VI NPT. Accordingly:
 - a) A broadening of the deterrence policy to incorporate prevention of non-nuclear attacks so as to justify replacing or upgrading Trident would appear to be inconsistent with Article VI;
 - b) Attempts to justify Trident upgrade or replacement as an insurance against unascertainable future threats would appear to be inconsistent with Article VI;
 - c) Enhancing the targeting capability or yield flexibility of the Trident system is likely to be inconsistent with Article VI;

³ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [100].

- d) Renewal or replacement of Trident at the same capability is likely to be inconsistent with Article VI; and
- e) In each case such inconsistency could give rise to a material breach of the NPT.

THE RELEVANT OBLIGATIONS UNDER THE *JUS AD BELLUM*, IHL AND ARTICLE VI NPT

The *jus ad bellum*

5. The *jus ad bellum* regulates the lawfulness of the use of force by one state against another. Article 2(4) of the UN Charter states the central tenet:

‘All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.’

The same threshold of legality applies to a threatened use of force as it does to an actual use:

‘If the envisaged use of force is itself unlawful, the stated readiness to use it would be a threat prohibited under Article 2, paragraph 4. ... The notions of “threat” and “use” of force under Article 2, paragraph 4, of the Charter stand together in the sense that if the use of force itself in a given case is illegal, for whatever reason, the threat to use such force will likewise be illegal. In short, if it is to be lawful, the declared readiness of a State to use force must be a use of force that is in conformity with the Charter. ... no State, whether or not it defended the policy of deterrence, suggested to the Court that it would be lawful to threaten a use of force if the use of force contemplated would be illegal.’⁴

The mere possession of nuclear weapons, when not accompanied by a specific threat against the territorial integrity or political independence of a state, does not amount to a threat within the meaning of Art. 2(4).⁵

6. Any use or threat of force is unlawful unless it falls within a recognised exception to Article 2(4), of which one is self-defence. Article 51 of the UN Charter states:

‘Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defence shall be immediately reported to the

⁴ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [47].

⁵ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [48]; Dissenting Opinion of Vice-President Schwebel.

Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.'

The provisions in Article 2(4) and Article 51 reflect customary international law.⁶ In September 2005 Heads of State and Heads of Government reaffirmed that '*the relevant provisions of the Charter are sufficient to address the full range of threats to international peace and security.*'⁷

7. The right to act in self-defence is circumscribed by a number of conditions, usefully summarised in the *Principles of International Law on the Use of Force by States in Self-Defence*, adopted in October 2005 by a group of 13 international law academics and practitioners under the auspices of the International Law Programme at Chatham House ('the Chatham House Principles').⁸ We adopt the approach set forth in the Principles. Two conditions are key:

i) Measures taken in self-defence must be necessary in order to respond to the armed attack; and

ii) They must be a proportionate response to that attack.⁹

8. Necessity is a strict objective standard,¹⁰ and one that must be determined at the time of the decision to take the measures. Necessity in the context of self-defence requires a close temporal nexus between the attack and the response: any delay in response will undermine the credibility of the need to respond at all. It also requires that there be no other way of eliminating the danger, other than the measures taken.¹¹ In our view necessity is not, however, a fixed or static concept; it must take account of *inter alia* technological developments so that – together with the notion of imminence - its application today might be different from when the UN Charter was adopted in 1945.¹² Chatham House Principle 3 summarises the requirements as follows:

⁶ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* ICJ Reports 1986, [173] – [176].

⁷ See 2005 World Summit Outcome Document, [79], in UN General Assembly Resolution 60/1 (24 October 2005), available at: <http://daccessdds.un.org/doc/UNDOC/GEN/N05/487/60/PDF/N0548760.pdf?OpenElement>

⁸ The Chatham House Principles are available at: <http://www.chathamhouse.org.uk/index.php?id=261>

⁹ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* ICJ Reports 1986, [176], cited in *Legality of the Threat or Use of Nuclear Weapons, (Advisory Opinion at the request of the UN General Assembly)*, ICJ Reports 1996, [41].

¹⁰ *Oil Platforms (Islamic Republic of Iran v United States of America)* ICJ Reports 2003, [73].

¹¹ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* ICJ Reports 1986, [237], [282]; cited in *Oil Platforms (Islamic Republic of Iran v United States of America)* ICJ Reports 2003, [43].

¹² Chatham House Principles, commentary to Principles 3 and 4, p.8, cited in part below at paragraph 10.

‘Force may be used in self-defence only when this is necessary to bring an attack to an end, or to avert an imminent attack. There must be no practical alternative to the proposed use of force that is likely to be effective in ending or averting the attack.’

The commentary to Principle 3 states that:

*‘In applying the test of necessity, reference may be made to the means available to the state under attack; the kinds of forces and the level of armament to hand will be relevant to the nature and intensity of response that it would be reasonable to expect, as well as the realistic possibilities of resorting to non-military means in the circumstances’.*¹³

9. Proportionality is to be assessed on an ongoing basis throughout the course of the measures taken, and must consider the entirety of those measures.¹⁴ Chatham House Principle 5 summarises the requirements as follows:

‘The exercise of the right of self-defence must comply with the criterion of ‘proportionality’.

- *The force used, taken as a whole, must not be excessive in relation to the need to avert or bring the attack to an end.*
- *The physical and economic consequences of the force used must not be excessive in relation to the harm expected from the attack.’*

The commentary to Principle 5 states:

‘The ICJ has confirmed that it is a well-established rule of customary international law that a use of force in self-defence must be “proportional to the armed attack and necessary to respond to it.” This requires that the level of force used is not greater than that necessary to end the attack or remove the threat. As such it is another way of looking at the requirement of necessity.

The proportionality requirement has been said to mean in addition that the physical and economic consequences of the force used must not be excessive in relation to the harm expected from the attack. But because the right of self-defence does not allow the use of force to ‘punish’ an aggressor, proportionality should not be thought to refer to parity between a response and the harm already suffered from an attack, as this could either turn the concept of self-defence into a justification for retributive force, or limit the use of force to less than what is necessary to repel the attack.’

10. Also relevant to the ambit of this opinion is the use of force in response to an anticipated rather than ongoing attack. On this issue, we share the opinion of the Attorney General, Lord Goldsmith, that *‘international law permits the use of force in self-defence against an imminent attack but does not authorise the use of force*

¹³ Chatham House Principles, p.8.

¹⁴ *Oil Platforms (Islamic Republic of Iran v United States of America)* ICJ Reports 2003, [77].

to mount a pre-emptive strike against a threat that is more remote.’¹⁵ What amounts to ‘imminent’ is a question of fact to be judged on the circumstances of each case. Any use of self-defence in these circumstances must, of course, fulfil the usual requirements of necessity and proportionality. Principle 4 of the Chatham House Principles provides:

‘A state may use force in self-defence against a threatened attack only if that attack is ‘imminent’.’

There is a risk of abuse of the doctrine of anticipatory self-defence, and it needs to be applied in good faith and on the basis of sound evidence. But the criterion of imminence must be interpreted so as to take into account current kinds of threat and it must be applied having regard to the particular circumstances of each case. The criterion of imminence is closely related to the requirement of necessity.

- *Force may be used only when any further delay would result in an inability by the threatened state effectively to defend against or avert the attack against it.*
- *In assessing the imminence of the attack, reference may be made to the gravity of the attack, the capability of the attacker, and the nature of the threat, for example if the attack is likely to come without warning.*
- *Force may be used only on a proper factual basis and after a good faith assessment of the facts.’*

The commentary to Principle 4 provides, *inter alia*, as follows:

‘The concept of ‘imminence’ reflects the Caroline formulation of ‘instant, overwhelming, leaving no choice of means, and no moment for deliberation’. In the context of contemporary threats imminence cannot be construed by reference to a temporal criterion only, but must reflect the wider circumstances of the threat.

There must exist a circumstance of irreversible emergency. Whether the attack is ‘imminent’ depends upon the nature of the threat and the possibility of dealing effectively with it at any given stage. Factors that may be taken into account include: the gravity of the threatened attack – whether what is threatened is a catastrophic use of WMD; capability - for example, whether the relevant state or terrorist organisation is in possession of WMD, or merely of material or component parts to be used in its manufacture; and the nature of the attack – including the possible risks of making a wrong assessment of the danger. Other factors may also be relevant, such as the geographical situation of the victim state, and the past record of attacks by the state concerned.

The criterion of imminence requires that it is believed that any further delay in countering the intended attack will result in the inability of the defending state

¹⁵ *Hansard* HL Vol 660, Col 370, 21 April 2004.

effectively to defend itself against the attack. In this sense, necessity will determine imminence: it must be necessary to act before it is too late. There is a question as to whether ‘imminence’ is a separate criterion in its own right, or simply part of the criterion of ‘necessity’ properly understood. As an additional criterion however it serves to place added emphasis on the fact that a forcible response in these circumstances lies at the limits of an already exceptional legal category, and therefore requires a correspondingly high level of justification.

To the extent that a doctrine of ‘pre-emption’ encompasses a right to respond to threats which have not yet crystallized but which might materialise at some time in the future, such a doctrine (sometimes called ‘preventive defence’) has no basis in international law.’

International Humanitarian Law

11. The UK does not dispute that customary IHL applies to nuclear weapons to the same extent as it does to conventional warfare.¹⁶ There are three principles of IHL central to the debate on the legality of the UK’s current and future nuclear capability:
 - a) The prohibition on indiscriminate weapons;
 - b) The prohibition on the use of weapons which cause unnecessary suffering;
 - c) The principle of neutrality.
12. The first two rules have been found by the ICJ to represent ‘*intransgressible principles of customary international law.*’¹⁷ A state is required to comply with them even when acting in self-defence, notwithstanding that its very survival is at risk.¹⁸ The ICJ has since clarified that they are obligations owed *erga omnes*.¹⁹

¹⁶ For example, *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [91], citing the Written Statement of the United Kingdom:

‘the legality of the use of nuclear weapons must therefore be assessed in the light of the applicable principles of international law regarding the use of force and the conduct of hostilities, as is the case with other methods and means of warfare.’

¹⁷ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [79].

¹⁸ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [39]:

‘A weapon that is already unlawful per se, whether by treaty or custom, does not become lawful by reason of it being used for a legitimate purpose under the Charter.’

See also, President Bedjaoui’s separate Declaration at [22].

¹⁹ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (Advisory Opinion) ICJ Reports 2004, [157].

THE PROHIBITION ON INDISCRIMINATE WEAPONS

13. It is a basic principle of customary IHL that a state must not carry out indiscriminate attacks. It is an embodiment of the obligation to distinguish between the civilian population and combatants.²⁰ In its Advisory Opinion on nuclear weapons the ICJ did not define the precise scope of the prohibition. However, in our view, the correct reading of the ICJ Opinion, and of the broader principle of distinction, supports the conclusion that there are two limbs to the prohibition:

- i) Not to use weapons which are incapable of being targeted on military objectives;
- ii) Not to use weapons which are capable of being targeted, but whose effects upon civilians cannot be controlled.

14. Our reasons for this conclusion are:

- i) The purpose of the principle of distinction would be significantly undermined if it permitted a state to use a weapon which was in theory capable of being targeted, in so far as the point of explosion could be determined, but the effects of which were so unpredictable as to make this targeting largely ineffective in ensuring a distinction between military and civilian objects.
- ii) The ICJ itself was concerned with the *effect* of a particular weapon, not just its targeting capability:

‘...humanitarian law, at a very early stage, prohibited certain types of weapons because of their indiscriminate effect on combatants and civilians...’²¹

15. In our opinion, a definition of the prohibition which overlooked the second limb identified at paragraph 13(ii) would be artificial and unduly limited. We find support for our conclusion both in Additional Protocol 1 to the Geneva Conventions (‘AP1’), Article 51(4),²² and in the comments of Louise Doswald-

²⁰ On which see Article 48 of AP1, which is codificatory of the customary international law obligation.

²¹ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [78] (emphasis added). This is further supported by the ICJ’s conclusion that nuclear weapons are ‘*scarcely reconcilable*’ with the obligations to discriminate and not to cause unnecessary suffering ([95]). It is not disputed that nuclear weapons are capable of being targeted with a relatively high degree of precision. Therefore the ICJ must have been referring to the *effects* of those weapons, not merely their targeting capability, when calling them ‘*scarcely reconcilable*’.

²² Article 51(4) provides:

‘Indiscriminate attacks are prohibited. Indiscriminate attacks are:

(a) Those which are not directed at a specific military objective;

(b) Those which employ a method or means of combat which cannot be directed at a specific military objective; or

Beck, Professor of International Law and Director of the University Centre for International Humanitarian Law, who has stated:

*'...the majority of state practice introduces a second condition for what could be considered an indiscriminate weapon: if the effects of a weapon, once targeted accurately at a military objective, are uncontrollable, the weapon is indiscriminate.'*²³

THE PROHIBITION ON WEAPONS WHICH CAUSE UNNECESSARY SUFFERING

16. The ICJ said of this principle:

'... it is prohibited to cause unnecessary suffering to combatants: it is accordingly prohibited to use weapons causing them such harm or uselessly aggravating their suffering. In application of that second principle, States do not have unlimited freedom of choice of means in the weapons they use.

*...humanitarian law, at a very early stage, prohibited certain types of weapons ... because of the unnecessary suffering caused to combatants, that is to say, a harm greater than that unavoidable to achieve legitimate military objectives.'*²⁴

17. The prohibition requires a state to first assess and then balance the likely suffering caused by a weapon against the military advantage gained by its use.

THE PRINCIPLE OF NEUTRALITY

18. This principle, which forms part of customary international law, places an obligation on states not to cause damage to neutral territory during attacks on a belligerent state:

'The inviolability of neutral territory also means that the neutral states must not be affected by collateral effects of hostilities. The parties to the conflict have no right to cause damage to neutral territory through hostilities themselves. Therefore, there is no rule of admissible collateral damage to the detriment of the neutral state. If the effects of attacks directed against targets

(c) Those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol; and consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction'

²³ Paper delivered to the Conference on Freedom from Nuclear Weapons through Good Faith and Accountability (Brussels, 6-7 July 2006).

²⁴ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [78].

*on the territory of a party to the conflict are felt on neutral territory, they are unlawful.*²⁵

Article VI of the Treaty on Non-Proliferation of Nuclear Weapons

19. The NPT was adopted on 12 June 1968 in New York. The United Kingdom, the United States and the Russian Federation were named as the depositary states. In accordance with Article IX, it entered into force when the fortieth state, in addition to the depositaries, ratified its provisions on 5 March 1970. To date, 189 states have ratified the NPT, of which one has withdrawn (North Korea in 2003). The significance of the NPT is aptly summarised by the United Nations' Weapons of Mass Destruction Branch:

*'The NPT is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.'*²⁶

20. The scope of the Article VI obligations remains the subject of considerable debate. The provision states:

'Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.'

21. The basic principles of treaty interpretation are set out in Articles 31 and 32 of the Vienna Convention on the Law of Treaties ('VCLT'). Although the VCLT does not have retrospective effect, and therefore does not directly apply to the NPT, the central tenets of interpretation which it encapsulates have been held by the ICJ to reflect customary international law.²⁷ Accordingly and in addition to the text of the NPT, the purposes of the preamble,²⁸ the materials produced at the subsequent

²⁵ M Bothe, 'The law of neutrality' in D Fleck *The Handbook of Humanitarian Law in Armed Conflicts* (1999: OUP).

²⁶ Available at <http://disarmament.un.org/wmd/npt/index.html>.

²⁷ *Territorial Dispute (Libyan Arab Jamahiriya/Chad)* ICJ Reports 1994, [41]:

'in accordance with customary international law, reflected in Article 31 of the 1969 Vienna Convention on the Law of Treaties, a treaty must be interpreted in good faith in accordance with the ordinary meaning to be given to its terms in their context and in the light of its object and purpose. Interpretation must be based above all upon the text of the treaty. As a supplementary measure recourse may be had to means of interpretation such as the preparatory work of the treaty and the circumstances of its conclusion.'

²⁸ VCLT Article 31(2): *'The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes...'*; NPT Article VIII(3): *'to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized.'* (emphasis added).

review conferences²⁹ and the *travaux préparatoires*³⁰ are relevant to interpreting Article VI.

22. The preamble and the materials produced at the review conferences are ‘primary’ sources of interpretation. The *travaux préparatoires* assume a ‘secondary’, supplementary role, and should only be relied on where the primary sources leave the meaning ambiguous or obscure, or lead to a result which is manifestly absurd or unreasonable.³¹

23. The preamble to the NPT states, in relevant part:

‘Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament...’

‘Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control...’

24. The review conferences are held in accordance with Article VIII(3) NPT, and serve to ensure that the purposes of the preamble and the provisions are being realised. Their significance has been underlined by the ICJ:

‘The importance of fulfilling the obligation expressed in Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons was also reaffirmed in the final document of the Review and Extension Conference of the parties to the Treaty on the Non-Proliferation of Nuclear Weapons, held from 17 April to 12 May 1995.’³²

25. The most significant conference to date was that held in 2000, where the parties agreed a series of ‘practical steps for the systematic and progressive efforts to implement article VI of the Treaty’.³³ Of particular relevance are steps 5, 6 and 9:

‘5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.’

²⁹ VCLT Article 31(3)(a): ‘any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions.’; NPT Article VIII(3): ‘a conference of Parties to the Treaty shall be held ... in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized.’

³⁰ VCLT Article 32.

³¹ VCLT Article 32.

³² *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [103].

³³ 2000 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons, Final Document, Volume I (NPT/CONF.2000/28 (Parts I and II)), p.14.

6. *An unequivocal undertaking by the nuclear weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under article VI. ...*

9. *Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:*

– *Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally;*

– *Increased transparency by the nuclear weapon States with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to article VI and as a voluntary confidence building measure to support further progress on nuclear disarmament;*

– *The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process;*

– *Concrete agreed measures to further reduce the operational status of nuclear weapons systems;*

– *A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons will ever be used and to facilitate the process of their total elimination;*

– *The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.'*

26. These '*progressive efforts*' add detail to the somewhat general obligation in Article VI NPT, and are relevant to interpreting the ambit of that provision. They make it clear that the obligation in Article VI is considerably wider than mere negotiation, and includes a specific and independent duty on each state to take steps towards disarmament. This is apparent from the language used: '*reduce their nuclear arsenals unilaterally*', '*unilateral initiatives*'. The inclusion in Step 9 of an obligation on nuclear weapon states to act with increased transparency with regard to their weapons capabilities is of particular note for the matters we consider in this opinion.

27. In so far as they are relevant, the *travaux préparatoires* of the NPT serve to confirm the importance of the obligation to achieve nuclear disarmament in Article VI. The negotiating history reveals the significance that the non-nuclear states placed upon the inclusion of nuclear disarmament in Article VI, and their dissatisfaction with earlier drafts which had only included references to 'cessation of the arms race' in the preamble.³⁴

³⁴ For a full account, see E Firmage, 'The Treaty on the Non-Proliferation of Nuclear Weapons' (1969) 63 AJIL 711, especially at 733-735.

28. The view that Article VI creates a specific obligation of nuclear disarmament and not just an obligation to negotiate was emphasised by the ICJ in *Legality of the Threat or Use of Nuclear Weapons*:

*‘The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result, nuclear disarmament in all its aspects, by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith ... This twofold obligation to pursue and to conclude negotiations formally concerns the 182 States parties to the Treaty ...’*³⁵

29. Acts or omissions by state parties which run counter to the objectives of Article VI, as elucidated in particular by the 2000 Review Conference, will therefore amount to a violation of an international legal obligation imposing an identifiable result. Breaches of Article VI *‘may be demonstrated by acts and failures to act which, taken together, render the fulfilment of specific treaty obligations remote or impossible.’*³⁶

30. Taking into account all of the above, Article VI can be seen to impose the following obligations:

- i) To undertake to pursue negotiations in good faith on effective measures to end the nuclear arms race at an early date;
- ii) To undertake to pursue negotiations in good faith on effective measures relating to nuclear disarmament;
- iii) To undertake to pursue negotiations in good faith on a treaty for general and complete disarmament.

31. In our opinion, these obligations, and in particular the requirement to act in good faith, would be breached by, *inter alia*, the following:

- i) An act or omission by a state party to the NPT which would render the attainment of the objective of nuclear disarmament remote or impossible;
- ii) An act which undermines the overall objective of nuclear disarmament, as elucidated by the 2000 Review Conference.

32. Article VI is at the very crux of the NPT’s purpose. In our view, it is a *‘provision essential to the accomplishment of the object or purpose of the*

³⁵ At [100].

³⁶ G Goodwin-Gill, ‘State Responsibility and the ‘Good Faith’ Obligation in International Law’, in, M Fitzmaurice and D Sarooshi (eds) *Issues of State Responsibility before International Judicial Institutions* (2004: Hart) 75, 84. See also, *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [102], citing its earlier decision in *Nuclear Tests (Australia v France)* ICJ Reports 1974, [46].

treaty.³⁷ Accordingly, breach of it would be material within the meaning of customary international law, as codified by the VCLT, Article 60.

33. A state cannot defend its own actions or inactions by reference to any failure by another state party, unless it is alleged that the failure amounted to a material breach warranting termination or suspension, and only then when the proper process is adhered to.³⁸ Alternatively, a state may elect to withdraw from the NPT in accordance with its international legal obligations, as is permitted by Article X, if it considers that extraordinary events require it to do so. However, in the absence of any such formal action to terminate, suspend or withdraw from the NPT, its obligations remain binding upon each state party in their entirety.

THE LEGALITY OF THE UK'S CURRENT STRATEGY ON THE USE OF NUCLEAR WEAPONS

The Trident system

34. Trident is a three-component nuclear missile system, and comprises the UK's strategic nuclear deterrent. The three elements are:³⁹
- i) The platform: Trident operates from Vanguard-class nuclear-powered submarines, of which there are currently four in service. Each submarine has 16 missile tubes. At any given time, one of the four submarines is on patrol, forming the Continuous-at-Sea Deterrent Cycle.
 - ii) The missile: the submarines carry Trident II D5 submarine-launched ballistic missiles, which have a range of between 6,500km and 12,000km, depending on their payload. The missiles are accurate to within a few metres, and each can carry up to 12 warheads. However, subsequent to the 1998 *Strategic Defence Review*, each submarine is currently limited to 48 warheads, implying no more than 3 warheads per missile. It is thought that some missiles are armed with a single warhead, to be used on a sub-strategic basis.⁴⁰
 - iii) The warhead: public information is limited as to the precise nature of the warheads used in Trident. However, they are thought to be closely related to the American W76 thermonuclear warhead, which has a yield of

³⁷ VCLT, Article 60(3). Article 60 has been acknowledged as codificatory of customary international law by the ICJ in, for example, *Gabcikovo-Nagymoros Project (Hungary/Slovakia)* ICJ Reports 1997, [46].

³⁸ As per VCLT Article 60.

³⁹ The technical information is extracted from: *House of Commons Defence Committee, Eighth Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), pp. 8-9, and, Dr Frank Barnaby, *What is Trident? The facts and figures of Britain's nuclear force* in Oxford Research Group, *The Future of Britain's Nuclear Weapons: Experts Reframe the Debate* (March 2006), pp. 7-10.

⁴⁰ P Rogers 'Big boats and bigger skimmers: determining the UK's role in the Long War' (2006) 82 *International Affairs* 651, 653, especially at fn. 4. On the meaning of 'sub-strategic', see paragraph 35, below.

approximately 100 kilotons ('kt').⁴¹ A 100kt explosion has a lethal distance⁴² of approximately 5km, such that the area of lethal damage will extend to some 74.2km². The UK has an estimated total stockpile of approximately 185 nuclear warheads.

According to the Atomic Weapons Establishment's 2000 Annual Report, Trident is capable of being fired at two yields, although the precise size is not specified.⁴³ It is believed that different yields are achieved '*by choosing to detonate a warhead's unboosted primary, which would produce a yield of 1 kiloton or less, or by choosing to detonate the boosted primary, which would produce a yield of approximately a few kilotons.*'⁴⁴ It therefore remains unclear whether there is capability to fire at two or three different yields, and what precisely those yields are.⁴⁵ For present purposes, it is noted that a 1kt explosion has a lethal distance of approximately 2.9km².

The lethal distance of a nuclear explosion accounts only for the immediate damage, and not for the residual radiation released in the fall-out. It must first be noted that it is impossible to predict the full effect of nuclear fall-out because '*where the fall-out goes will depend on the winds.*'⁴⁶ However, the following is one estimation of the likely fall-out from a 1kt nuclear explosion on the assumption of a particular wind speed:

*'Assuming a 24km per hour wind, ionising radiation levels from radioactive fallout within an area of about 15km² would be high enough to cause radiation sickness in the short term to those exposed in the open, and in some cases to those in buildings. This area would extend to some ten kilometres downwind and would have a maximum width of about 2km. Furthermore, radiation levels in an area of about 400km² would be such that certain counter-measures would have to be taken to protect people from the long-term effects of exposure to radiation – for example, fatal cancers. This area would extend to some 80km downwind.'*⁴⁷

⁴¹ One kiloton is an explosive force equivalent to 1,000 metric tons of TNT.

⁴² The distance within which there is a very high probability of death caused by the immediate blast, heat and radiation, excluding residual radiation. For 1kt explosions, radiation is more lethal than heat or blast. For 100kt explosions, heat is more lethal than either blast or radiation.

⁴³ Available at http://www.awe.co.uk/Images/annual_report_2000_tcm6-1764.pdf, at p.14.

⁴⁴ R S Norris and H M Kristensen, 'British Nuclear Forces' in *Bulletin of Atomic Scientists*, Vol 62, No. 6, Nov-Dec 2005, pp.77-79, available at http://www.thebulletin.org/article_nn.php?art_ofn=nd05norris.

⁴⁵ This raises concerns in relation to Step 9 of the Practical Steps agreed at the 2000 Review Conference, which refers to increased transparency by nuclear weapons states about their weapons capability. The absence of such transparency may serve to undermine the good faith obligation in Article VI NPT.

⁴⁶ *Report of the Inquiry into the Legality of Nuclear Weapons* (2004: Peacerights), [3.2.39], per Dr Frank Barnaby.

⁴⁷ Dr Frank Barnaby, *What is Trident? The facts and figures of Britain's nuclear force* in Oxford Research Group, *The Future of Britain's Nuclear Weapons: Experts Reframe the Debate* (March 2006), p.10.

35. Trident is intended to fulfil two roles within the UK defence policy: strategic and sub-strategic.⁴⁸ Strategic strikes are those which involve ‘a full-scale attack against an adversary in which all or a significant part of the available Trident force would be launched.’⁴⁹ In contrast, a sub-strategic strike is one involving the ‘launch of one or a limited number of missiles against an adversary as a means of conveying a political message, warning or demonstration of resolve.’⁵⁰ A more graphic description of the role and effect of a sub-strategic strike was given by a Ministry of Defence official in 1996:

*‘The limited and highly selective use of nuclear weapons in a manner that fell demonstrably short of a strategic strike, but with a sufficient level of violence to convince an aggressor who had already miscalculated our resolve and attacked us that he should halt his aggression and withdraw or face the prospect of a devastating strategic strike.’*⁵¹

Trident is not currently held out as fulfilling a tactical role, ‘where weapons are used for a military purpose against enemy units on the battlefield’.⁵²

The UK’s current strategy on the use of Trident

36. In this section of our opinion, we consider the legality of the current UK stance on the use of nuclear weapons, as encapsulated in two statements.

37. The first is the 1998 *Strategic Defence Review*, which provides:

*‘...while large nuclear arsenals and risks of proliferation remain, our minimum deterrent remains a necessary element of our security. ... This does not depend on the size of other nation’s arsenals but on the minimum necessary to deter any threat to our vital interests.’*⁵³

As to what constitute the UK’s ‘vital interests’:

‘We are a major European state and a leading member of the European Union. Our security is indivisible from that of our European partners and Allies. We therefore have a fundamental interest in the security and stability of the continent as a whole and in the effectiveness of NATO as a collective

⁴⁸ Atomic Weapons Establishment 2000 Annual Report, available at http://www.awe.co.uk/Images/annual_report_2000_tcm6-1764.pdf, at p.14.

⁴⁹ *House of Commons Defence Committee, Eighth Report of Session 2005-06, The Future of the UK’s Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), pp. 12-13.

⁵⁰ *Ibid.*

⁵¹ ‘Nuclear Deterrence in a Changing World: the view from a UK perspective’ in *RUSI Journal*, June 1996, cited by R S Norris and H M Kristensen, ‘British Nuclear Forces’ in *Bulletin of Atomic Scientists*, Vol 62, No. 6, Nov-Dec 2005, pp.77-79, fn. 4.

⁵² *Trident and the Future of the British Nuclear Deterrent* (Standard Note: SN/IA/3706, 27 April 2006), p.12.

⁵³ *Strategic Defence Review*, Cm 3999, [61] (emphasis added).

political and military instrument to underpin these interests. This in turn depends on the transatlantic relationship and the continued engagement in Europe of the United States.

*But our vital interests are not confined to Europe. Our economy is founded on international trade. ...*⁵⁴

38. The second statement is reflected in a series of comments by the then Defence Secretary, Mr Hoon, in 2002:⁵⁵

'In March, Hoon said, in the context of Iraq: "I am absolutely confident, in the right conditions, we would be willing to use our nuclear weapons."

*...a few days later Hoon gave more particulars to Jonathan Dimbleby, insisting that the nuclear option would be taken pre-emptively, if we thought British forces were about to be attacked by Iraqi chemical or biological weapons.*⁵⁶

*"A British government must be able to express their view that, ultimately and in conditions of extreme self-defence, nuclear weapons would have to be used."*⁵⁷

39. Mr Hoon's comments are to be taken as representing the views of the Government. In the *Nuclear Tests Case* the ICJ found that the comments of the French President

*'and members of the French Government acting under his authority up to the last statement made by the Minister of Defence ... constitute a whole. Thus, in whatever form these statements were expressed, they must be held to constitute an engagement of the State, having regard to their intention and to the circumstances in which they were made.'*⁵⁸

40. These statements reveal an apparent willingness to use nuclear weapons against non-nuclear states in order to deter attacks on 'vital interests', where those interests include conventional UK forces overseas under threat from biological or chemical warfare.

The use of nuclear weapons against non-nuclear states in response to threats against the UK's 'vital interests', including forces overseas

41. It is apparent from Mr Hoon's comments, made as Defence Secretary, that the policy of the British Government is to countenance the use of nuclear weapons in

⁵⁴ *Ibid.*, [18]-[19] (emphasis added).

⁵⁵ *Hoon's talk of pre-emptive strikes could be catastrophic*, The Guardian, 6 June 2002.

⁵⁶ The full transcript of the exchange between Mr Hoon and Jonathan Dimbleby can be found at <http://cndyorks.gn.apc.org/news/articles/uknukpolicy.htm> ; see paragraph 51, below.

⁵⁷ This last quote was taken from Mr Hoon's response to questions in the House of Commons: *Hansard*, HC, vol 384, col 665, 29 April 2002.

⁵⁸ *Nuclear Tests Case (Australia v France)* ICJ Reports 1974, [49].

self-defence against a threatened attack by a non-nuclear state.⁵⁹ As we stated above, in our opinion, the use of force in response to a threatened attack may be lawful, but only where the following three requirements are met:

- i) The threat posed is imminent;
- ii) The response is necessary;
- iii) The response is proportionate.

42. It must also be recalled that:

*'A weapon that is already unlawful per se, whether by treaty or custom, does not become lawful by reason of it being used for a legitimate purpose under the Charter.'*⁶⁰

43. Therefore, if a particular nuclear weapon is inherently incapable of meeting the requirements imposed by IHL, its use in self-defence will not be lawful: a weapon's inherent illegality is not corrected by virtue of the right to act in self-defence. Our conclusions on the legality under IHL of deploying Trident as it is currently constituted can be found at paragraphs 59, 63 and 64, below. In this section, we only consider issues of compatibility with the *jus ad bellum*

Imminence

44. The imminence of a threat can only be judged by reference to a specific factual situation. Accordingly, it is impossible to form an opinion in the abstract as to whether this criterion is fulfilled. However, we re-affirm the view that there must be an immediate threat in the circumstances that prevailed, and not a threat that was more remote or hypothetical: see paragraph 10, above. We note also the debate ignited by the USA's suggestion in its National Security Strategy, published during the period prior to the invasion of Iraq, that the use of force was permissible even where the imminence of the threat had not been determined:

*'The United States has long maintained the option of preemptive actions to counter a sufficient threat to our national security. The greater the threat, the greater is the risk of inaction—and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy's attack. To forestall or prevent such hostile acts by our adversaries, the United States will, if necessary, act preemptively.'*⁶¹

⁵⁹ See above, paragraph 38.

⁶⁰ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [39]. See also, President Bedjaoui's separate Declaration at [22], where he makes it clear that a state is bound by these principles, even when acting in self-defence and when the state's very survival is at stake.

⁶¹ The National Security Strategy of the United States of America, 20 September 2002, cited in the *House of Commons Select Committee on Foreign Affairs, Second Report of Session 2002-03, Foreign Policy Aspects of the War Against Terrorism* (HC 196, 19 December 2002), [49].

45. It is our strong view that there is no rule of international law which would permit the use of force, regardless of whether it was by nuclear or conventional weaponry, in circumstances where the intention is to forestall an unascertained future attack, rather than to prevent an imminent and identifiable threat.⁶²

Necessity and proportionality

46. We stated our understanding of these requirements at paragraphs 8-9, above. Accordingly, any use of nuclear weapons in self-defence which exceeds that which is strictly and objectively necessary and proportionate will be unlawful. Use of force which is excessive to that required to respond to a real threat will be disproportionate.

47. The ICJ has provided some indication of the threshold that would have to be met in relation to nuclear weapons:

*'... in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstances of self-defence, in which the very survival of a State would be at stake.'*⁶³

48. In his separate Declaration, President Bedjaoui made it clear that this should not *'in any way be interpreted as leaving the door open to the recognition of the lawfulness of the threat or use of nuclear weapons.'*⁶⁴ In our opinion, the ICJ's statement tends to support the view that where the *'very survival'* of a state is not at stake it would be difficult to envisage the necessity and proportionality – and hence legality – of the use of nuclear weapons. Relatedly, we wish to be clear that we are not concluding that whenever the *'very survival'* of a state is at stake *any* scale of nuclear response will be lawful. The presence of a threat to state survival does not, in our view, absolve the threatened state from its obligation to confine its response to that which is necessary and proportionate⁶⁵, and in compliance with IHL.

49. In considering whether the UK could act lawfully in using nuclear weapons to respond to a threatened attack, it must be recalled that the current Trident system uses warheads with a yield of approximately 100kt (although capable, it is thought, of being deployed with approximately 1 or 5kt yields, with some modification⁶⁶). A weapon of this size has a lethal distance of approximately 74.2km².⁶⁷ For parity, six of the most central London boroughs have population

⁶² See further, Chatham House Principle 4, cited above at paragraph 10.

⁶³ At [105(2)(E)] (emphasis added).

⁶⁴ At [11].

⁶⁵ *Legality of the Threat or Use of Nuclear Weapons*, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [39]. See also, President Bedjaoui's separate Declaration at [22], where he makes it clear that a state is bound by these principles, even when acting in self-defence and when the state's very survival is at stake.

⁶⁶ See above, paragraph 34.

⁶⁷ *Ibid.*

densities in excess of 10,000 people per square kilometre.⁶⁸ A 100kt nuclear explosion in an area with a similar population density is likely to have a lethal distance encompassing in excess of 74,000 people.

50. Given the long-term and extreme devastation and loss of life likely to be caused by a response using the UK's current nuclear weaponry, we are of the view that the threat posed must, as the ICJ intimated, be one that goes to the very survival of the state. By this we mean an action which threatens the existence, not merely the effectiveness, of the most essential economic and political components of the state. Alternatively, an action which would kill or incapacitate a significant percentage of the UK's population may threaten the state's survival, although substantial loss of life on its own is unlikely to be enough to merit deployment of nuclear weapons. We are of the opinion that the 'vital interests' outlined in the 1998 *Strategic Defence Review*, in particular those outside the jurisdiction of the UK, could not lawfully be protected by way of a nuclear strike. The *Strategic Defence Review* is, in our view, overbroad and not easily reconcilable with the approach taken by the ICJ.
51. We are asked to consider specifically the scenario of using nuclear weapons to deter an imminent biological or chemical attack on UK forces overseas. Whilst the seriousness of such a threat or attack is very great and should not be underestimated, in our view it falls short of the threat to state survival envisaged by the ICJ as *potentially* justifying a nuclear response in self-defence. This is especially so given that the UK does not currently have tactical nuclear weapons capability.⁶⁹ The use of nuclear weapons in this situation is therefore likely to be sub-strategic, intended to convey a political message, and involving the use of one or a small number of warheads⁷⁰ which would inevitably have an impact upon non-military personnel and property. Indeed, the Government appears to accept that significant civilian casualties and devastation would be the likely consequence of such an attack:

JONATHAN DIMBLEBY: You also told the select committee that you doubted whether Saddam Hussein would be deterred by that threat. If you did then use British nuclear weapons against Iraq because he was not deterred, you would in effect be punishing the people of Iraq for what Saddam Hussein had done with annihilation.

GEOFF HOON: What we would be doing is defending ourselves and the British people against a threat from Saddam Hussein, I said in extreme conditions of self-defence we would need to do that. You're suggesting somehow that we're talking about retaliation, we are talking about reserving the right to protect our own people from attack by Saddam Hussein. ...

JONATHAN DIMBLEBY: If Britain was to use its own weapon of mass destruction one nuclear weapon you would in effect be obliterating the lives of

⁶⁸ http://www.statistics.gov.uk/downloads/theme_population/regional_snapshot/RS_Lon.pdf .

⁶⁹ See above, paragraph 34.

⁷⁰ *Ibid.*

hundreds of thousands of people in Iraq, you would have destroyed Iraq, the countries around, Turkey, in the Gulf, Jordan, Saudi Arabia, Israel, could very easily be horrifically effected by nuclear fall out. I put it to you that in reality no British government would ever, against the threat that you described, deploy that weapon of mass annihilation.

*GEOFF HOON: That is why these are in only the most extreme circumstances where there is a direct threat to our forces and to our people from weapons of mass destruction but it is important that we do not rule that out, it is important that we do not allow an appalling dictator like Saddam Hussein to know precisely what our response might be.*⁷¹

52. Mr Hoon did not challenge the view that the use of nuclear weapons he envisaged would cause the damage suggested by his interviewer. In our opinion, the use of nuclear weapons in this situation could not comply with the requirements of self-defence and would be in breach of the UK's obligations under Article 2(4) of the UN Charter, as well as IHL. It would be unlawful.⁷²

⁷¹ Transcript of an interview between Jonathan Dimbleby and Mr Hoon on 24 March 2002, available at <http://cndyorks.gn.apc.org/news/articles/uknukpolicy.htm> (emphasis added).

⁷² We referred above, at paragraph 5, to the ICJ's conclusion that a threat of force would be unlawful if the use of the force threatened would itself be unlawful. We do not, in this opinion, consider the question of whether the UK has acted in breach of the specific obligation not to threaten unlawful force. However, and given our conclusions on the legality of the use of force contemplated by Mr Hoon, we note our concerns as to the *possibility* of such a breach.

THE LAWFULNESS UNDER IHL OF THE CURRENT TRIDENT SYSTEM

53. In this part of our opinion we consider whether Trident, as currently constituted, is capable of being deployed in a manner compatible with IHL. We have already outlined our understanding of the relevant IHL obligations. We do not consider in this section the context in which the weapons may be deployed i.e. self-defence, which is discussed elsewhere in this opinion.

Compatibility with the prohibition on indiscriminate weapons

54. We stated above, at paragraph 13, our understanding of the requirements of this prohibition. We concluded that, in order to meet the obligations it imposes, a weapon must be capable of being targeted and its effects must be capable of being predicted and controlled sufficiently so as to be able to discriminate between combatants and civilians.

55. The UK has continually maintained that nuclear weapons are capable of complying with this obligation. In its written statement to the ICJ in the *Legality of the Threat or Use of Nuclear Weapons* the UK said:

*'The reality ... is that nuclear weapons might be used in a wide variety of circumstances with very different results in terms of likely civilian casualties. In some cases, such as the use of a low yield nuclear weapon against warships on the High Seas or troops in sparsely populated areas, it is possible to envisage a nuclear attack which caused comparatively few civilian casualties. It is by no means the case that every use of nuclear weapons against a military objective would inevitably cause very great collateral civilian casualties.'*⁷³

56. In our opinion, this position fails to give sufficient regard to all consequences of a nuclear explosion. It is certainly possible to envisage a nuclear strike on the high seas or in a sparsely populated area in which the lethal distance of the immediate explosion will be sufficiently limited so as to be able to discriminate between combatants and civilians. We would add, however, that the UK has never sought to expressly limit its policy on the use of nuclear weapons to such situations, and its recent statements in relation to Iraq do not limit the potential use of nuclear weapons to these circumstances. We accept that the UK has made general statements saying that it will act compatibly with its legal obligations,⁷⁴ but it has nonetheless countenanced the use of nuclear weapons to deter non-nuclear attacks on UK forces overseas, and in circumstances where massive civilian loss of life is highly likely.⁷⁵ Moreover, it did not seek then to argue that the weapon would only be used in a sparsely populated area, or even to rebut the suggestion that civilian casualties would be vast.

⁷³ At p.53, [3.70], cited by the ICJ in its Advisory Opinion at [91].

⁷⁴ *Strategic Defence Review*, Cm 3999, [22].

⁷⁵ See above, paragraph 51.

57. More important, however, is the failure to give sufficient regard to the secondary, but unique aspect of a nuclear explosion: the radioactive fall-out. It cannot sensibly be argued that this is currently capable of either prediction or limitation. The ICJ assessed these effects as follows:

'...nuclear weapons are explosive devices whose energy results from the fusion or fission of the atom. By its very nature, that process, in nuclear weapons as they exist today, releases not only immense quantities of heat and energy, but also powerful and prolonged radiation. According to the material before the Court, the first two causes of damage are vastly more powerful than the damage caused by other weapons, while the phenomenon of radiation is said to be peculiar to nuclear weapons. These characteristics render the nuclear weapon potentially catastrophic. The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet.

The radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area. Further, the use of nuclear weapons would be a serious danger to future generations. Ionizing radiation has the potential to damage the future environment, food and marine ecosystem, and to cause genetic defects and illness in future generations.

...methods or means of warfare, which would preclude any distinction between civilian and military targets, or which would result in unnecessary suffering to combatants, are prohibited. In view of the unique characteristics of nuclear weapons, to which the Court has referred above, the use of such weapons in fact seems scarcely reconcilable with respect for such requirements.'⁷⁶

58. Further explanation and support for the uncontrollable and unpredictable nature of nuclear weapons can be found in the comments of Dr Douglas Holdstock, a member of Medact's Nuclear Hazards Group and a retired hospital physician with experience of radiation protection:

'As well as prompt radiation, a nuclear explosion creates large amounts of highly radioactive material by fission of uranium or plutonium. In addition, if the explosion is low in the atmosphere or at ground level, so that the fireball is in contact with the ground, solid material is sucked into it and irradiated also creating radioactive isotopes.

The fate of this material depends upon particle size and weather conditions. Much of it is deposited in an approximately cigar-shaped area down-wind of the explosion. The various forms of radiation sickness ... would result, the most severe of course closest to the explosion site. The extent of the fall-out would depend on the size of the explosion and wind speed. After the first multi-megaton H-bomb explosion at Bikini Atoll in the Pacific in 1954, the plume extended for over 400km, most of the islanders in atolls 200km from Bikini

⁷⁶ *Legality of the Threat or Use of Nuclear Weapons, (Advisory Opinion at the request of the UN General Assembly), ICJ Reports 1996, [35] / [95] (emphasis added).*

were affected by radiation-induced illnesses including cancers. Some of these atolls were still uninhabitable 25 years later.

...Some of the irradiated material is carried high into the stratosphere and comes down slowly over a wide area as delayed fall-out.

...[Q] What would be the effects on civilians if a single 'tactical Trident' warhead were detonated in the Arctic or the Sahara?

It probably wouldn't do very much physical damage. The surrounding area would become desert (if it were not desert already). The fallout would be mainly in uninhabited areas, but some would go high up into the stratosphere, carried by the wind and come down all over the earth. Civilian deaths could not be ruled out.

[Q] What would be the effects of using a nuclear device at sea?

A tidal wave-like effect. Irradiated water would not be as dangerous as irradiated debris. But radiation would get into the food-chain (through fish). Internal radioactivity, through inhalation of radioactive fall-out or through ingestion of affected food, is much worse than external effects. It would produce cancers and could produce birth defects. References to severely deformed babies in the Bikini Islands could well have been caused by the fact that people ate a lot of fish in that region.⁷⁷

59. In our opinion, there is ample evidence on which it can be concluded that the harmful effects of the nuclear weapons currently held by the UK are inherently unpredictable and uncontrollable. We conclude that there must be a presumption that the use of the UK's current nuclear weaponry, whether with 1kt or 100kt yields, would breach the prohibition on the use of indiscriminate weapons.

Compatibility with the prohibition on unnecessary suffering

60. A nuclear explosion produces both immediate radiation and radioactive fall-out. Exposure to either can cause radiation sickness. The closer to the explosion site, the higher the degree of radiation. The stronger the radiation, the more severe the sickness. In larger nuclear explosions, the heat and blast will generally kill more people than the immediate radiation. However, smaller 1kt nuclear events cause less lethal blast and heat damage, and the preponderance of fatalities will be caused by radiation.⁷⁸

⁷⁷ *Report of the Inquiry into the Legality of Nuclear Weapons* (2004: Peacerrights), [3.3.10]-[3.3.13] / [3.3.27].

⁷⁸ See above, paragraph 34(iii).

61. Acute radiation sickness has three forms, which are dependent on the level of radiation received:⁷⁹
- i) The neurological syndrome is caused by the highest doses of radiation. It leads to coma and rapid death;
 - ii) The gastrointestinal syndrome is caused by a lesser dose. It causes severe vomiting, intestinal ulceration and copious diarrhoea, and has a very high mortality rate;
 - iii) The bone marrow is affected in the third form of acute sickness, caused by lower levels of radiation. This leads to a lowering of white blood cells and blood clotting agents. In itself this can be fatal. It also predisposes the victim to infection and reduces the ability to heal other injuries sustained in a nuclear explosion. This may render fatal injuries which were otherwise survivable.
62. Those who do survive acute radiation sickness, and those who are exposed to radiation, but who do not develop acute symptoms, are at increased risk of leukaemia and other cancers for several years thereafter.
63. It is indisputable that the various forms of acute radiation sickness, and the long-term effect of exposure to high levels of radiation, cause considerable and prolonged suffering. We also note the view, shared by an increasing number of commentators, that there is no military purpose for nuclear weapons which is incapable of being achieved by conventional weaponry.⁸⁰ In our opinion, the unique suffering caused by radiation from a nuclear explosion, and potentially coupled with an absence of true military necessity, is such as to render the use of the nuclear weapons currently held by the UK inherently in violation of the prohibition on unnecessary suffering.

Compatibility with the principle of neutrality

64. The inability to predict or control the geographical or temporal consequences of nuclear fall-out is readily apparent. It is also clear that nuclear fall-out causes considerable damage to the natural environment as well as to humans: on this we reiterate the conclusions of the ICJ, quoted at paragraph 57, above. In our opinion, it is therefore difficult to envisage any circumstances in which the use of Trident would not breach the principle of neutrality by causing damage to neutral states.

⁷⁹ The following is extracted from *Report of the Inquiry into the Legality of Nuclear Weapons* (2004: Peacerights), [3.3.8], per Dr Douglas Holdstock.

⁸⁰ *Report of the Inquiry into the Legality of Nuclear Weapons* (2004: Peacerights), [3.2.39], per Dr Frank Barnaby. See also Louise Doswald-Beck's paper delivered to the Conference on Freedom from Nuclear Weapons through Good Faith and Accountability (Brussels, 6-7 July 2006).

THE LEGALITY OF REPLACING OR UPGRADING TRIDENT

65. The Government has stated that a decision will be taken on the future of Trident during the current Parliament. In June 2005, the then Defence Secretary Dr Reid accepted that enhancements to the UK's nuclear capability could breach the NPT obligations:

*'...the answer depends on what we do: if we replace the existing system with a massive increase in our capability, that may not be compatible; if we reduce capability, that may well be compatible. So the answer to the question is precisely as I said: it could well be in line with our existing obligations.'*⁸¹

66. There are a number of options open to the UK, of which the following are most relevant:

- i) Not to replace Trident. There are approximately 18 years of Trident's projected 30 year life span remaining, during or at the end of which the UK would relinquish its nuclear deterrent;
- ii) To upgrade the current Trident system, for example by enhancing its targeting capabilities;
- iii) To replace Trident with a new system of the same or similar capabilities;
- iv) To replace Trident with a new system using smaller yields.

67. In our view, there is no inherent legal difference between an 'upgrade' and a 'replacement', both of which would involve enhancing the current system. The question is one of substance and not form: whether the changes are such as to be incompatible with the UK's obligations under Article VI NPT and IHL.

68. On this basis, we consider the options in terms of their substantive impact on the UK's nuclear posture and capability, rather than their form as an upgrade or replacement. From the current debate, we consider the following to be the most relevant possibilities:

- i) Enhanced targeting systems, permitting more accurate deployment of nuclear weapons;
- ii) Increased yield flexibility, incorporating a 'mini-nuclear capability' for explosions of 1-5kt;
- iii) Renewal of the current capability over a longer period.

69. Before we consider the legality of these three possibilities, there are some issues relating to the underlying policy of the UK's nuclear deterrent which we think are relevant to the current debate. We deal with these issues first, and then consider the three possibilities outlined above. We do not consider in this opinion the issue of any upgrades that may already have been made to the UK's nuclear weaponry, and which do not bear on the legality of future upgrades or renewals.

⁸¹ *Hansard* HC Vol 434, Col 987, 6 June 2005.

The policy underlying Trident

70. Trident was initially developed in the context of the Cold War, and was intended to fulfil the ‘Moscow criteria’: *‘the ability to threaten to inflict sufficient damage on Moscow and a number of other Soviet cities at any time of the day, 365 days of the year’*.⁸² Since the end of the Cold War, this particular context and purpose has become redundant. Robin Cook MP, the former Foreign Secretary, said in July 2005:

*‘No other credible nuclear threat has stepped forward to replace the Soviet Union as a rationale for the British nuclear weapons system. To be sure, two or three other nations have emerged with a crude nuclear capability, but none of them has developed the capacity or the motivation to attack Britain. ... the collapse of the cold war has removed even the theoretical justification for our possessing strategic nuclear weapons.’*⁸³

71. In 1993 the then Defence Secretary, Malcolm Rifkind, stated:

*‘Of course complete and general nuclear disarmament remains a desirable ultimate goal and we must continue to make what progress we can towards it. But nuclear weapons cannot be dis-invented.... And reflect on the course of events, should at some distant point in the future a new East/West threat arise. ... We would be at risk of seeing, in such circumstances, a race to be the first to recreate nuclear weapons ... Would a Europe in which the prospect of a nuclear rearmament race existed be genuinely more stable?’*⁸⁴

72. In December 2003 the Ministry of Defence stated: *‘There are currently no major conventional military threats to the UK or NATO...’*⁸⁵ Similarly, the 1998 *Strategic Defence Review* concluded that *‘there is today no direct military threat to the United Kingdom or Western Europe. Nor do we foresee the re-emergence of such a threat. But we cannot take this for granted.’*⁸⁶

73. The Government maintains that nuclear weapons form an important part of the UK’s defence policy, although not in order to counter the terrorist threat.⁸⁷ Dr Reid, then Defence Secretary, said in January 2006:

⁸² *House of Commons Defence Committee, Eighth Report of Session 2005-06, The Future of the UK’s Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), p. 14.

⁸³ *Worse than irrelevant*, The Guardian, 29 July 2005.

⁸⁴ *‘UK Defence Strategy: A continuing role for nuclear weapons?’*, speech to the Centre for Defence Studies, 16 November 1993, [6].

⁸⁵ *‘Delivering Security in a Changing World: Defence White Paper’* Cm. 6041-I, [3.1].

⁸⁶ Cmnd 3999, [3].

⁸⁷ Prime Minister Tony Blair in response to a question by Paul Flynn MP during Prime Minister’s Questions on 19 October 2005:

‘I do not think that anyone pretends that the independent nuclear deterrent is a defence against terrorism.’ Hansard HC, Vol 437, Col 841.

However, some authors persist in contending that nuclear weaponry would be apt to tackle the terrorist threat:

*'It is perfectly true that there are new threats arising from terrorism, but that does not mean that the old threats have disappeared. It is equally true that the type of forces that we would need to develop to counter-terrorism, such as special forces, extra surveillance and extra mobility, are not necessarily nuclear weapons. That nuclear weapons are not a response to the threat of terrorism does not mean, however, that we should, for instance, get rid of special forces because they are not a response to the threat of nuclear weapons. The truth is that we need a range of responses to a range of threats.'*⁸⁸

The legitimacy of the policy justifications for replacing or upgrading Trident

74. The Government has stated that it will set out the factors it believes are relevant to the necessary current and any possible future minimum nuclear deterrent for the UK when it publishes a White Paper.⁸⁹ Until then, the following is representative of the Government's stance:

- i) The nuclear deterrent is not dependent on the size of nuclear arsenals held by other states;
- ii) The nuclear deterrent is not retained because of the status it accords the UK in its international relations;
- iii) It is retained because of its role in deterring acts of aggression, insuring against the re-emergence of major strategic military threats, preventing nuclear coercion and preserving peace and stability.⁹⁰

75. This can be distilled into two principal bases on which the UK is likely to justify any upgrade to or replacement of Trident:

- i) Deterrence;
- ii) Insurance against a possible future threat.

'I am sure there are many terrorists who literally are beyond deterrents, but terrorists require support, and, to the degree that they require state support, the states that support them are capable of being deterred.... There is relevance to having nuclear weapons, shall I say, to discourage terrorists or to discourage those who are supporting terrorists. In the new environment, we are not in the business of having nuclear threats to destroy populations. If we ever had to use those weapons, they should be employed against very particular targets and for very particular purposes, and that requires a nuclear arsenal that is not really the nuclear arsenal we have which we have inherited from the Cold War.' Dr Colin Gray of the University of Reading, to the House of Commons Defence Committee, Uncorrected Transcript of Oral Evidence (HC 986-ii, 21 March 2006, Q97, available at <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmdfence/uc986-ii/uc98602.htm>).

⁸⁸ HC Debate, 23 January 2006, col 1153-4.

⁸⁹ House of Commons Defence Committee, Ninth Special Report of Session 2005-06, *The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context: The Government Response to the Committee's Eighth Report of Session 2005-06* (HC 1558: 26 July 2006), [11].

⁹⁰ House of Commons Defence Committee, Ninth Special Report of Session 2005-06, *The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context: The Government Response to the Committee's Eighth Report of Session 2005-06* (HC 1558: 26 July 2006), [5].

DETERRENCE

76. The UK has consistently argued that it is necessary to retain a nuclear capability as a deterrent. In its response to the Defence Committee's Eighth Report of Session 2005-06, the Government reiterated the following statement initially made in the December 2003 Defence White Paper '*Delivering Security in a Changing World*':

*'However, the continuing risk from the proliferation of nuclear weapons, and the certainty that a number of other countries will retain substantial nuclear arsenals, mean that our minimum nuclear deterrent capability, currently represented by Trident, is likely to remain a necessary element of our security.'*⁹¹

77. The Government's stated justification for a nuclear deterrence is therefore the possession of nuclear weapons by other states. It does not, on its face, appear to be predicated on the possession of conventional, chemical or biological weaponry by other states.

78. However, these statements must be read in light of Mr Hoon's comments, as Defence Secretary, in 2002 that the UK would use nuclear weapons to deter chemical or biological attacks on UK forces overseas.⁹² They must also be read in light of Dr Reid's comments, as the Minister of State for the Armed Forces, made in 1997:

'The role of deterrence, to which the right hon. Member referred, must not be overlooked. Even if a potential aggressor has developed missiles with the range to strike at the United Kingdom, and nuclear, biological or chemical warheads to be delivered by those means, he would have to consider--he would do well to consider--the possible consequences of such an attack.

... Although such despots often appear indifferent to the suffering of their own peoples, I see no sign that they are indifferent to the survival of their regimes and the preservation of their personal positions. Deterrence has a bearing on both those matters.

*It seems unlikely that a dictator who was willing to strike another country with weapons of mass destruction would be so trusting as to feel entirely sure that that country would not respond with the power at its disposal. Any state contemplating such an assault on a NATO member would have to consider the implications very carefully.'*⁹³

⁹¹ Cm 6041-I, [3.11], cited in *House of Commons Defence Committee, Ninth Special Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context: The Government Response to the Committee's Eighth Report of Session 2005-06* (HC 1558: 26 July 2006), [8].

⁹² See above, paragraphs 38 / 51.

⁹³ *Hansard* HC Vol 302, Col 576-7. See also, the answers of Lord Hoyle in the House of Lords debates following the publication of the Strategic Defence Review in 1998:

'Q. What is their policy with regard to nuclear retaliation in the case of aggressor states contemplating the use of chemical and biological weapons?'

79. If this reflects the actual Government policy on Trident, that it is necessary for deterrence of both nuclear and non-nuclear weapons of mass destruction (WMD), this raises concerns as to the ambit of the deterrence doctrine and the impact on the UK's compliance with Article VI NPT.
80. We considered above, at paragraphs 30-31, the obligations imposed by Article VI. The conflict of an expanded deterrence policy with these obligations is two-fold:
- i) The expansion of the policy basis on which nuclear weapons can be retained undermines the disarmament objective of Article VI NPT, and is therefore inconsistent with the treaty obligation. It is contrary to the steps agreed by the parties to the NPT at the 2000 conference which includes:

*'A diminishing role for nuclear weapons in security policies to minimise the risk that these weapons will ever be used and to facilitate the process of their total elimination.'*⁹⁴
 - ii) If nuclear deterrence is justified by the UK on the basis of non-nuclear WMD, and not just nuclear WMD, this is a significant extension of the previous rationale. It is also a basis on which the UK can argue, indefinitely, for the retention of nuclear weapons. This has the potential to thwart the good faith in negotiating nuclear disarmament that the UK is obliged to show under Article VI NPT, by rendering disarmament a more remote prospect.
81. In our opinion, any extension of the deterrence doctrine to include threats posed by non-nuclear WMD would be inconsistent with the rationale of Article VI NPT.
82. The Government has not argued to date that deterrence requires the UK to have a tactical nuclear capability. Were this to become part of the Government's justification in the forthcoming White Paper, we would repeat our view that any expansion of the policy basis on which nuclear weapons can be retained is a breach of Article VI NPT.

INSURANCE AGAINST POSSIBLE FUTURE THREATS

83. The UK has not, as yet, sought to justify retention of a nuclear deterrent on the basis of any *specific* threat or act of aggression. Instead, it appears to be predicated in part on an inability to rule out any future threats.⁹⁵

Lord Hoyle: The use of chemical or biological weapons by any state would be a grave breach of international law. A state which chose to use chemical or biological weapons against the United Kingdom should expect us to exercise our right of self defence and to make a proportionate response.'

Hansard HL, Vol 593, Col WA224, 29 October 1998.

⁹⁴ 2000 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons, Final Document, Volume 1 (NPT/CONF.2000/28 (Parts I and II)), p.14, Step 9 (emphasis added).

⁹⁵ House of Commons Defence Committee, Eighth Report of Session 2005-06, *The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), pp. 25-7.

84. In its response to the Defence Committee's Eighth Report of Session 2005-06, the Government stated:

*'The debate about the future of the UK's nuclear deterrent is less about the security position now than about the extent to which we can be confident about the nature of the risks and threats to our defence and security interests that we might face over the next 20-50 years.'*⁹⁶

85. The difficulty with this rationale is that we cannot now and will not in the future be able to predict what threats the UK will face 20-50 years hence. If this inability to predict future risks forms the basis of the Government's policy on upgrading or replacing Trident, we will never be in a position to rule out the need for a nuclear deterrent. Essentially the argument is one for permanent retention. As Professor Colin Gray has argued:

*'... in 2006, we can no more predict the strategic history of the 21st Century, than our predecessors in 1906 could predict what the 20th Century would bring.'*⁹⁷

86. This leads to an obvious conflict with the UK's obligations under Article VI NPT, the requirements of which we outlined above, at paragraphs 30-31. The UK is required to negotiate in good faith on effective measures to achieve nuclear disarmament. If the position of the UK is that a nuclear deterrent remains necessary whilst there is the unascertainable risk of a future threat developing, this amounts to a *de facto* acceptance that the UK will never fully disarm. In our opinion, this can only negate the good faith with which the UK is required to negotiate in order to achieve precisely the aim that its policy will never permit: complete nuclear disarmament by the UK and other states.⁹⁸

87. In our opinion, any justification for upgrading or replacing Trident predicated on the risk of some possible (but unknown) future threat is inherently incompatible with Article VI NPT. This conclusion applies regardless of the precise nature of the proposed upgrade or replacement because it belies a more general failure to observe the good faith obligation.

⁹⁶ House of Commons Defence Committee, *Ninth Special Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context: The Government Response to the Committee's Eighth Report of Session 2005-06* (HC 1558: 26 July 2006), [13].

⁹⁷ In evidence to the House of Commons Defence Committee, cited in *Eighth Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), [97].

⁹⁸ In its evidence to the House of Commons Defence Committee, the British American Security Information Council (BASIC) stated:

'Any replacement system for Trident based upon the belief that the UK needed to maintain an insurance policy against possible future threats would logically entail permanent possession and therefore an abrogation of our treaty responsibilities.'

House of Commons Defence Committee, Eighth Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context (HC 986: 30 June 2006), Evidence 111, at [2.25].

Enhanced targeting systems

88. The US Navy is carrying out a Life Extension Programme (LEP) to its Trident systems, two aspects of which are:

- i) *'Equipping guidance systems with GPS and "three-axis flat system" for steering the re-entry vehicle. This is a significant upgrade designed to increase accuracy...'*
- ii) *'... a new guidance system using updated technologies....'*⁹⁹

89. The legal consequences of the UK taking steps such as these, which are intended to improve the accuracy of the targeting and guidance systems of nuclear weapons, must be considered both in relation to IHL and Article VI NPT.

90. Dealing first with IHL, we concluded above, at paragraphs 59, 63 and 64, that it should be presumed that use of Trident as currently constituted would breach the prohibitions on indiscriminate weapons, and on unnecessary suffering, and would be likely to breach the neutrality principle. We reached this view on the basis, primarily, of the uncontrollable and devastating effects of the radiation released in a nuclear explosion that would follow the use of Trident. In our opinion, improving the targeting accuracy of nuclear weapons will have little or no effect on this aspect of their consequences and therefore on their compatibility with IHL.

91. Moreover, it is our view that enhancing the targeting capability of the UK's nuclear weaponry undermines the objectives of the NPT, and Article VI in particular. We reach this view on the basis that, *inter alia*, such steps:

- i) Would go against the principle of irreversibility in nuclear disarmament and arms controls which the NPT parties adopted at the 2000 Review Conference, in that it would improve and enhance the UK's nuclear deterrent, rather than diminishing it;¹⁰⁰
- ii) Are likely to increase the circumstances in which the UK's nuclear weapons would be used, in particular in establishing a tactical capability where precision targeting would be of most use, contrary to the obligation to pursue a diminishing role for nuclear weapons in security policies, and to specifically reduce non-strategic weaponry.¹⁰¹

⁹⁹ *House of Commons Defence Committee, Eighth Report of Session 2005-06, The Future of the UK's Strategic Nuclear Deterrent: the Strategic Context* (HC 986: 30 June 2006), Evidence 111, at [3.4].

¹⁰⁰ *2000 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons, Final Document, Volume 1* (NPT/CONF.2000/28 (Parts I and II)), p.14, Step 5. See also, the comments of the Defence Select Committee in 1994 that enhanced targeting can improve the UK's nuclear capability, even when coupled with a reduction in overall explosive power:

'Trident's accuracy and sophistication in other respects does – and was always intended to – represent a significant enhancement of the UK's nuclear capability. We have invested a great deal of money to make it possible to attack more targets with greater effectiveness using nominally equivalent explosive power.' HC297, Session 1993-94, p.xiv.

¹⁰¹ *Legality of the Threat or Use of Nuclear Weapons, (Advisory Opinion at the request of the UN General Assembly)*, ICJ Reports 1996.

92. We concluded above, at paragraph 31, that any steps which undermined the overall objective of nuclear disarmament, or which rendered that objective remote, would be inconsistent with Article VI NPT. Accordingly, and in our opinion, enhancement of the targeting capability of the UK's nuclear deterrent, particularly in the context of a broadening of deterrence policy, would be likely to breach Article VI NPT.

Increased yield flexibility

93. The possibility of developing of a nuclear warhead with a wider range of yield options to replace Trident has been the subject of some speculation.¹⁰² This would allow 'more "useable" smaller weapons to be deployed against more "precise" targets.'¹⁰³ Were such weapons to be developed, it is likely they would fulfil a tactical role which Trident does not currently offer. In assessing the legality of such a development, it must be recalled that the UK is already thought to have the capability to fire Trident warheads modified so as to give yields of 1 or 5kt.¹⁰⁴

94. It is not immediately clear to us that the development of smaller and more useable nuclear weapons with yields from 1kt upwards would diminish the prospects for breaches of IHL that use of the current Trident weapons is likely to engender (as discussed above, at paragraphs 54-64). Although the radiation released from a 1kt explosion is relatively small in comparison to a larger weapon, it is nonetheless incapable of control and apt to cause indiscriminate harm and unnecessary suffering.¹⁰⁵ Accordingly, it is our view that the use of a nuclear weapon with increased yield flexibility will not necessarily be lawful under IHL, and the overwhelming likelihood is that it would not be.

95. Again, it is our opinion that developing an increased flexibility in yields, in particular to permit tactical deployment, is an enhancement to the current Trident system that undermines the objectives of the NPT. We acknowledge that Trident is capable of being fired at lower yields, but it is apparent that this is a relatively limited capability, giving only two options in addition to the 100kt full yield. In our view, a more flexible system would:

¹⁰² *Trident and the Future of the British Nuclear Deterrent* (Standard Note: SN/IA/3706, 27 April 2006), p.31.

¹⁰³ *Ibid.*

¹⁰⁴ See above, at paragraph 34.

¹⁰⁵ Louise Doswald-Beck has stated:

'...having heard various opinions from physicist, there is no nuclear weapon, however small, that will not result in radiation that will be let out into the atmosphere. This is especially so if one intends to use it in a tactical way against a very small specific objective. It is likely to be detonated nearer the ground, which means there is likely to be more fallout. As a result there will be the same problem of indiscriminate effects of radiation ending up in various unforeseeable places.'

Paper delivered to the Conference on Freedom from Nuclear Weapons through Good Faith and Accountability (Brussels, 6-7 July 2006).

- i) Enhance the role of nuclear weapons in the UK's security policy;
 - ii) Lead to an increase in the UK's non-strategic weapons capability.
96. Both these consequences appear contrary to the practical steps adopted by the state parties to the NPT at the 2000 Review Conference.¹⁰⁶ In our opinion, a system with enhanced yield flexibility will undermine the principle of irreversibility and the obligation to move towards disarmament, in so far as it signifies a technical advance rendering the use of nuclear weapons more, and not less, likely. For these reasons, we conclude that any such system would be inconsistent with the obligations owed under Article VI NPT.

Renewal of the current capability over a longer period

97. Even those who are sceptical of the imperative nature of the obligations in Article VI, accept that:

'...the broad thrust of article VI ought to be recognized as among the factors carrying some weight in the scales against renewal, and in particular against renewal at unchanged or increased magnitude.'¹⁰⁷

98. In our opinion, this underestimates the strength of the obligations imposed by Article VI. We do not share the view that:

'...it cannot plausibly be maintained that a legal imperative rests upon the United Kingdom – which has repeatedly affirmed its willingness to abandon capability when all others do – to do so unilaterally, regardless of action by others.'¹⁰⁸

99. It is apparent from the steps agreed at the 2000 Review Conference that the obligation on the nuclear weapons states under Article VI is *unilateral* as well as *collective*:

'Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally'¹⁰⁹

100. We accept that this does not impose a complete obligation to disarm, or even an absolute obligation to reduce. However, in our view, it does prohibit steps which are inconsistent with '*further efforts to reduce*'. Such steps would have the effect of undermining the overall objective of disarmament and the good faith obligation in relation to negotiations under Article VI.

¹⁰⁶ 2000 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons, Final Document, Volume 1 (NPT/CONF.2000/28 (Parts I and II)), p.14, Step 9.

¹⁰⁷ M Quinlan, 'The future of the United Kingdom nuclear weapons: shaping the debate', (2006) 82 *International Affairs* 627, 633.

¹⁰⁸ *Ibid.*

¹⁰⁹ 2000 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons, Final Document, Volume 1 (NPT/CONF.2000/28 (Parts I and II)), p.14, Step 9.

101. In our opinion, a decision to renew the existing capability, especially on the policy bases of deterrence and insurance considered above, would be incompatible with the taking of *'further steps to reduce'* the UK's nuclear arsenal. It renders disarmament more remote and is likely to undermine the good faith obligation. Accordingly, it is likely to be a material breach of Article VI.

CONCLUSION

102. We have considered three main issues in this opinion: the legality of the UK's strategy on the use of nuclear weapons, the compatibility of the use of Trident with IHL, and the legality of replacing or upgrading the current system.

103. We have concluded that there are serious concerns in all three areas. In particular, we are concerned that the UK has stated a willingness to use nuclear weapons in situations which appear to be outside the doctrine of self-defence as currently recognised under international law. Moreover, it is very difficult to reconcile the indiscriminate and uncontrollable effects of using the Trident system with the UK's obligations under IHL.

104. In relation to the future of Trident, our concerns are twofold. First, we are concerned about the broadening in policy which may be relied on to justify any renewal, replacement or upgrade. Second, we are concerned about the legality of the specific technical options for such renewal, replacement or upgrade. In our view, there are several bases on which expanding either policy or capability may breach the obligations owed by the UK under Article VI of the NPT.

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