

**THE PSNI'S PROPOSED
INTRODUCTION OF TASER**

HUMAN RIGHTS ADVICE

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THE PSNI'S PROPOSED INTRODUCTION OF TASER

HUMAN RIGHTS ADVICE

EXECUTIVE SUMMARY

- I. The PSNI proposal to introduce Taser does have human rights implications.
- II. It follows that the Policing Board has a duty to consider those human rights implications, not least because of its statutory duty to monitor the performance of the PSNI in complying with the Human Rights Act 1998.
- III. There have been a number of sudden deaths reported after the use of Taser. How far the evidence has established a causal link between death and the use of Taser, either as a sole direct cause or as a contributory cause, is disputed. But what is clear is that some groups are more vulnerable to the use of Taser than others (e.g. those suffering from mental illness, those using drugs and/or those in a state of excited delirium) and all the evidence available to date from England, Wales and Scotland suggests that in a high percentage of cases, Taser has been used against these very groups.
- IV. The full effects of Taser on other groups such as children and pregnant women are not known.
- V. On the other hand, DOMILL's overall conclusion is that the risk of life-threatening or serious injuries from the M26 Taser are "very low." Since Taser has been more widely available in England, Scotland and Wales, there has been only one case in which concern has been raised about a possible link between Taser and death. There has been no other evidence to date of serious injury caused by Taser.
- VI. Accordingly, Taser should be treated as potentially lethal equipment, rather than lethal or non-lethal.
- VII. The fact that Taser should be treated as potentially lethal does not mean that its use can never be compatible with Article 2 of the European Convention on Human Rights (Article 2 ECHR) (the right to life) or the Human Rights Act 1998.
- VIII. The proper test under Article 2 ECHR and the Human Rights Act 1998 for the use of Taser is that its use will be lawful where it is immediately necessary to prevent or reduce the likelihood of recourse to lethal force (e.g. conventional firearms).
- IX. This is a test that is just below that for the use of lethal force (such as conventional firearms), but a much stricter test than that which applies for other uses of (non lethal) force. It means that Taser can be used in circumstances where there is a threat to life or a threat of serious injury, but that threat has not quite reached the threshold where lethal force (such as conventional firearms) could be justified.

- X. We are concerned that none of the official bodies charged with considering the use of Taser have publicly addressed the legal and human rights framework within which Taser can or should be used.
- XI. We are also concerned that the current ACPO Policy and Guidance on the use of Taser may not be sufficiently clear and may accommodate cases which would not satisfy the test for use of Taser that we have set out above. Consequently, they may not meet the requirement under Article 2 ECHR that law enforcement officers, including the police, should receive clear and precise instructions as to the manner and circumstances in which they should make use of Taser.
- XII. In our view, before the PSNI proposal to introduce Taser is progressed, the Policing Board should satisfy itself that the PSNI has properly addressed the legal and human rights framework within which Taser can be used and, in particular, that it has devised clear and robust policy, guidance and training to ensure that any use of Taser in Northern Ireland fully complies with the requirements of the European Convention on Human Rights and the Human Rights Act 1998.
- XIII. In addition, if Taser is introduced in Northern Ireland, the relevant authorities must ensure that all operations in which Taser might be used are planned and controlled so as to minimise, to the greatest extent possible, recourse to its use.
- XIV. A case for the introduction of Taser requires the PSNI to show that there have been or may well be situations in Northern Ireland in which the use of Taser would be immediately necessary to prevent or reduce the likelihood of recourse to lethal force.
- XV. As currently presented, we are not satisfied that the PSNI proposal to introduce Taser meets that requirement.
- XVI. Although the letter sent by the PSNI to consultees on 25th September 2006 refers to a ‘capability gap’ that has been identified regarding its response to certain types of incidents and gives some hypothetical examples (some of which would clearly satisfy the Article 2 ECHR test), we are not convinced that this aspect of the PSNI proposal to introduce Taser is robust enough to withstand careful scrutiny. In our view, a ‘capability gap’ can only properly be identified once the proper legal test for the use of Taser has been set out and agreed. But that is not the approach that the PSNI has adopted to date.
- XVII. We recommend that the Policing Board should require the PSNI to provide clearer evidence of a capability gap requiring the introduction of Taser before its proposal is progressed. That evidence should take account of the test for the use of Taser that we have set out above.
- XVIII. That is not to say that a case for the introduction of Taser in Northern Ireland cannot be made out. It is simply to say that clear evidence of a capability gap should be provided before potentially lethal equipment is made available to any law enforcement agency.

THE PSNI'S PROPOSED INTRODUCTION OF TASER

HUMAN RIGHTS ADVICE

A. INTRODUCTION

1. Since April 2003, electronic devices known as Tasers have been available in prescribed circumstances initially to five police forces in England and Wales as part of an operational trial and, since September 2004, to all police forces in England, Wales and Scotland.
2. In June 2005, the Chief Constable of the Police Service of Northern Ireland (PSNI) informed the Northern Ireland Policing Board (the Policing Board) of his intention to introduce Taser for use by a limited number of officers for a trial period of twelve months. During the course of that year, Her Majesty's Inspectorate of Constabulary (HMIC) conducted a review of the deployment and roles of armed officers. In its report dated 9th December 2005, HMIC recommended that the PSNI should examine the acquisition of Taser as a further less lethal option for deployment at incidents which merit the deployment of firearms by officers.¹
3. Following a presentation by the PSNI to the Policing Board's Human Rights and Professional Standards Committee in January 2006, the Policing Board conducted a short consultation process about the Chief Constable's proposal to equip a number of PSNI officers with Tasers. That resulted in a decision by the Policing Board at its meeting on 28th March 2006 to request the PSNI to undertake an equality screening exercise in relation to the proposed introduction of Taser.
4. As part of its equality screening process, the PSNI sent a letter to consultees on 25th September 2006 seeking comments on the proposed introduction of Taser for use by the PSNI. The PSNI letter indicated that:

“PSNI, along with HMIC and the Association of Chief Police Officers, have identified a ‘capability gap’ regarding PSNI response to certain types of incidents, and Taser has the potential to provide a less lethal option to the use of a conventional firearm. Examples of incidents could include a person wielding a long bladed weapon, a person brandishing a firearm or imitation firearm, or a person threatening self-harm. These situations have and do occur in Northern Ireland. PSNI officers are at present not sufficiently equipped for such situations, as officers could be forced to use lethal force where Taser could be a more appropriate, proportionate and less lethal response.”

¹ HMIC, *Review of PSNI Compliance and Its Statement of Intent on the Police Use of Firearms and Less Lethal Weapons*, Recommendation 21.

5. The letter also addressed the question of the proposed threshold for the use of Taser:

“The intention would be for PSNI to reflect the practice in England and Wales where Taser is used only by Authorised Firearms Officers as a less lethal alternative, for use in situations where a firearms authority has been granted. PSNI intend to limit issue of Taser to specialist firearms units.

The standard for Taser would be analogous to that for firearms, with the officer having an honest belief of absolute necessity to save life or prevent serious injury.”

6. In its 2006 Baseline Assessment of the PSNI, HMIC reiterated in its ‘areas for improvement’ that:

“The Service currently does not have the full range of less lethal options available to it with the absence of Taser. This should be considered for introduction once armed response vehicles (ARVs) have been introduced”.²

7. As the Policing Board’s Human Rights Advisors, the Policing Board has asked us to consider and advise on the human rights implications of the proposed introduction of Taser.

8. In preparing this advice, we met representatives of the American Civil Liberties Union, Amnesty International, the Children’s Law Centre, the Northern Ireland Commissioner for Children and Young People, the Northern Ireland Human Rights Commission and the Omega Foundation. We also discussed the PSNI’s proposal to introduce Taser at a series of roundtable meetings on PSNI use of force with representatives of local non-governmental organisations and other interested parties, including British Irish Rights Watch, the Committee on the Administration of Justice, the Equality Commission, the Office of the Police Ombudsman, the Pat Finucane Centre, Relatives for Justice, Save the Children and the United Campaign Against Plastic Bullets. We also attended seminars held by Amnesty International and the Northern Ireland Human Rights Commission. In addition, we discussed a number of issues relating to Taser use in England, Scotland and Wales with Ian Arundale and Charles Hill (ACPO), Christian Papaleontiou (Home Office), Graham Smith (Home Office Scientific Development Branch) and Steven McCourt (Northern Ireland Office).

9. In preparing this advice, we also compiled and reviewed all the available documentation relating to Taser that we could access. This is voluminous and a bibliography is set out and attached as Appendix 1 to this report. We circulated a draft of this bibliography to interested parties to ensure that we had the fullest possible coverage of materials.

² HMIC, *Baseline Assessment Police Service of Northern Ireland*, published on 2nd April 2007.

B. DESCRIPTION OF EQUIPMENT

10. There are a variety of different devices available that use electricity to incapacitate the target but their principle of operation is the same. They are battery powered and use a high voltage electrical current to incapacitate.
11. The most widely known and used electrical device is the Taser. This was first devised in 1970 by John H. Cover and has been used by police departments in the United States and Canada for many years. Taser is an acronym for 'Thomas A Swift Electric Rifle' after the Tom Swift fantasy stories that John H. Cover read as a child.
12. The Taser is a hand-held device that generates a high voltage electrical current. When the Taser is fired, it propels two barbs at an individual which are intended to attach to the skin or clothing of the torso and/or lower limbs of the target. The barbs pull wires behind them. A sequence of very short duration, high voltage current pulses passes through the wires. The current flows into the body and results in a loss of muscular control and in pain. This manner of use is called the 'probe' mode. Some models also enable direct contact of the Taser device with an individual, whereby two closely spaced fixed electrodes pass the current pulses directly into the body of the subject. This manner of application is called the 'stun' mode.³
13. The usual maximum range of the Taser is about 21 feet (6.4 metres); this being the length of the wires attached to the barbs that carry the current. The normal reaction of a person exposed to the discharge of a Taser is the loss of some voluntary muscle control resulting in the subject falling to the ground or 'freezing' on the spot. The device relies on physiological effects other than pain alone to achieve its objective.
14. The Taser currently being used in England, Scotland and Wales has an inbuilt audit trail. Each Taser is fitted with a cartridge with a unique serial number as well as identification discs. Each time the Taser is fired, approximately 40 identification discs are discharged. Each disc is stamped with the unique serial number of the Taser cartridge.
15. There are several different suppliers of Tasers and each of their models differs in some way. The two major suppliers of Tasers were Taser Technologies Inc. and Electronic Medical Research Laboratories (trading as Tasertron) and Taser International, but, in June 2003, Taser International acquired the assets of Tasertron.

C. LEGAL FRAMEWORK

16. The use of force by police officers in Northern Ireland is governed by the Criminal Law (Northern Ireland) Act 1967, the Police and Criminal Evidence (Northern Ireland) Order 1989, the common law and Article 2 of the European Convention on Human Rights (ECHR). Article 2 ECHR applies because s.6(1)

³ Secretary of State's Steering Group, Third Report, 2002, p.47, para. 10.

of the Human Rights Act 1998 requires the PSNI, as a public authority, to act compatibly with the ECHR.⁴

All uses of force

17. The Criminal Law (Northern Ireland) Act 1967, the Police and Criminal Evidence (Northern Ireland) Order 1989 and the common law apply to all uses of force by the PSNI and require that it should be “reasonable” in the circumstances. Reasonable in this context should probably be interpreted as meaning “strictly necessary” in the execution of police duties.⁵ This is reflected in the PSNI *Use of Force Policy*⁶ which expressly requires that, in carrying out their duties, PSNI officers “shall, so far as possible, apply non-violent means before resorting to the use of force”. It instructs police officers only to resort to force if other means remain ineffective and there is no realistic promise of achieving the lawful objective without exposing police officers, or anyone whom it is their duty to protect, to a real risk of harm or injury.

Lethal or potentially lethal force

18. Article 2 ECHR applies to the use of lethal or potentially lethal force⁷ by the PSNI and requires that such force be no more than is “absolutely necessary” to defend any person from unlawful violence, to effect an arrest (or prevent escape) or to quell a riot or insurrection (see Article 2(2) ECHR).
19. The use of lethal or potentially lethal force to arrest someone (or prevent escape), although (as noted above) permitted under Article 2(2) ECHR, is very strictly limited. In *Nachova v Bulgaria*,⁸ the European Court of Human Rights (European Court) indicated that it would not be “absolutely necessary” to use lethal or potentially lethal force to arrest an individual unless s/he was violent and posing a threat to life or limb.⁹ This effectively aligns the use of lethal force to effect an arrest (or prevent escape) with the use of lethal force to defend any person from unlawful violence.

The test of absolute necessity

20. The words “absolutely necessary” in Article 2 ECHR are crucial and indicate that a very strict and compelling test of necessity is to be applied.¹⁰ The *UN Basic Principles on the Use of Force and Firearms by Law Enforcement*

⁴ Save in the limited circumstances permitted by s.6(2) Human Rights Act 1998 which are not relevant to this report.

⁵ *UN Code of Conduct for Law Enforcement Officials* 1979, Article 3.

⁶ General Order 34/2001, *Human Rights and the Police Use of Force*.

⁷ The European Court of Human Rights has extended the ambit of Article 2 ECHR to circumstances where potentially lethal force is used on a number of occasions: e.g. *Makaratzis v Greece* 50385/99 (20th December 2004) para. 53.

⁸ 43577/98 (6th July 2005).

⁹ *Nachova v Bulgaria*, para. 95.

¹⁰ *McCann v UK* (1995) 21 EHRR 97; *Ramsahai v Netherlands* 52391/99 (10th November 2005).

Officials, which the European Court has used in interpreting Article 2 ECHR,¹¹ provide that:

“Law enforcement officers shall not use firearms against persons except in self-defence or the defence of others against the imminent threat of death or serious injury, to prevent the perpetration of a particularly serious crime involving grave threat to life, to arrest a person presenting such a danger and resisting their authority, or to prevent his or her escape, and only when less extreme means are insufficient to achieve those objectives. In any event, the intentional lethal use of firearms may only be made when strictly unavoidable in order to protect life”.¹²

The term “firearms” is not defined in the *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*, but, read in context, it probably refers to conventional firearms, such as guns.

21. It is the genuine and honest belief of the officer using force that is important. So long as s/he genuinely and honestly believes that lethal or potentially lethal force is “absolutely necessary” for one of the permitted reasons, Article 2 ECHR will be satisfied, even if that belief subsequently turns out to be mistaken. The European Court has taken the view that to hold otherwise would impose “an unrealistic burden” on the police in the execution of their duty “perhaps to the detriment of others”.¹³

Training, planning and control

22. Because of the fundamental nature of the right to life, Article 2 ECHR has implications for training, planning and control. In *Simsek v Turkey*, the European Court made it clear that the police officers in question should have been provided with effective training “with the objective of complying with international standards for human rights and policing”.¹⁴ The European Court also made it clear, by reference to the Parliamentary Assembly of the Council of Europe *Declaration on the Police*,¹⁵ that the police should have received “clear and precise instructions as to the manner and circumstances in which they should make use of firearms”.¹⁶
23. So far as planning and control are concerned, the European Court has indicated in a series of cases that Article 2 ECHR requires the relevant authorities to plan and control operations in which lethal or potentially lethal force might be used “so as to minimise, to the greatest extent possible, recourse to lethal force”.¹⁷

¹¹ *Simsek v Turkey*, [2005] ECHR 35072/97, para. 91; *Nachova v Bulgaria* 43577/98 and 43579/98 (6th July 2005), para. 72; *Makaratzis v Greece* 50385/99 (20th December 2004).

¹² *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials* 1990, para.9.

¹³ *McCann v UK* (1995) 21 EHRR 97 para. 200; *Bubbins v UK* 50196/99 ECHR 2005.

¹⁴ *Simsek*, para. 109.

¹⁵ Resolution 690 (1979).

¹⁶ *Simsek v Turkey*, para.109.

¹⁷ *McCann v UK* (1996) 17 EHRR 97 para. 194; *Andonricou and Constantinou v Cyprus* (1997) 25 EHRR 491 para. 181.

24. In *Simsek v Turkey*, the European Court said of the planning and control aspects of Article 2 ECHR that:

“... police officers should not be left in a vacuum when exercising their duties, whether in the context of a prepared operation or a spontaneous pursuit of a person perceived to be dangerous. A legal and administrative framework should define the limited circumstances in which law-enforcement officials may use force and firearms, in light of the international standards which have been developed in this respect”.¹⁸

The international standards that the European Court was referring to in *Simsek v. Turkey* include those derived from the International Covenant on Civil and Political Rights¹⁹ (and the General Comments of the UN Human Rights Committee on that instrument²⁰), the *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*²¹ and the *UN Code of Conduct for Law Enforcement Officials*.²² In light of the European Court’s repeated reliance on these instruments in interpreting Article 2 ECHR, they can now be treated as important yardsticks against which the use of lethal or potentially lethal force should be judged.

Less life-threatening alternatives

25. It will be difficult to justify the use of conventional firearms as “absolutely necessary” where less life-threatening equipment is available and could have been used. Hence a breach of Article 2 ECHR was found in *Simsek v Turkey* where police officers discharged conventional firearms at demonstrators “without first having recourse to less life-threatening methods, such as tear gas, water cannons or rubber bullets”.²³
26. In turn, it is the duty of the relevant authorities to “provide the necessary equipment, such as tear gas, plastic bullets, water cannons etc.” and in *Simsek v Turkey* the European Court found “unacceptable” the failure to provide such equipment to the police for use when dispersing demonstrators.²⁴ The European Court also made specific reference to para.2 of the *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*, which provides:

“... the Governments undertake to develop a range of means as broad as possible and equip law enforcement officials with various types of weapons and ammunition that would allow for a differentiated use of force and firearms. These should include the development of non-lethal incapacitating weapons for use in appropriate situations, with a view to increasingly restraining the application of the means capable of causing death or injury to persons. For the same purpose, it should also be possible

¹⁸ *Simsek v Turkey*, para. 105.

¹⁹ *Ibid*, para. 89.

²⁰ *Ibid*, para. 90.

²¹ *Ibid*, para. 91.

²² *Ibid*, para. 92.

²³ *Ibid*, para. 108.

²⁴ *Ibid*, para. 111.

for law enforcement officials to be equipped with self-defence equipment such as shields, helmets, bullet-proof vests and bullet-proof transportation, in order to decrease the need to use weapons of any kind”.²⁵

Tasers

27. The European Court has not yet had to consider a case in which the compatibility of electrical devices such as Taser with the ECHR has been in issue. Nor has the UN Human Rights Committee determined any individual communication cases on the issue of the compatibility of such devices with the International Covenant on Civil and Political Rights. Thus there is no case law that directly bears on this subject.
28. However, both the UN Human Rights Committee and the UN Committee against Torture have made observations about the use of Taser when considering the reports submitted to them by individual countries on a periodic basis.²⁶ It is clear from these observations that:
- (a) Both the UN Human Rights Committee and the UN Committee against Torture recognise that Taser can legitimately be used in some circumstances, but that those circumstances should be strictly limited and closely regulated.
 - (b) The UN Human Rights Committee considers that Taser should only be used in situations where “greater or lethal force would otherwise have been justified” and never used against “vulnerable persons”.²⁷

[The reference to “vulnerable persons” by the UN Human Rights Committee has to be read in the context of its recorded concern that there is evidence that Taser has been used in the USA against “unruly schoolchildren, mentally disabled or intoxicated individuals involved in disturbing but non-life threatening behaviour; elderly people; pregnant women; unarmed suspects fleeing minor crime scenes and people who argue with officers or simply fail to comply with police commands”.²⁸]

- (c) The UN Committee against Torture considers that the use of Taser should only be used as a “substitute for lethal weapons” and never used to restrain those in custody.²⁹

²⁵ Ibid, para. 91.

²⁶ For example, the UN Human Rights Committee Report on the USA, 15th September 2006, para.30 (CCPR/C/USA/CO/3), the UN CAT Report on the USA, 25th July 2006, para.35 (CAT/C/USA/CO/2), the UN CAT Report on the USA, 15th May 2000, para.179(e) (A/55/44) and the UN CAT Report on Switzerland, 21st June 2005, paras.4(b) and 5(b) (CAT/C/CR/34/CHE).

²⁷ UN Human Rights Committee Report on the USA, 15th September 2006, para.30 (CCPR/C/USA/CO/3),

²⁸ UN Human Rights Committee Report on the USA, 15th September 2006, para.30 (CCPR/C/USA/CO/3),

²⁹ UN CAT Report on the USA, 25th July 2006, para.35 (CAT/C/USA/CO/2) and UN CAT Report on Switzerland, 21st June 2005, paras.4(b) and 5(b) (CAT/C/CR/34/CHE).

29. In addition, the UN Special Rapporteur on the question of torture (who reports to the UN Commission on Human Rights) has considered the use of Taser in the context of recommendations about regulating trade in equipment that could be used for torture, inhuman or degrading treatment. The Commission of the European Communities has issued a draft Council Regulation dealing with the same subject.³⁰ It is clear from these bodies that:
- (a) Electronic devices such as Taser are treated as equipment which could be used for torture, inhuman or degrading purposes but which also have legitimate uses, rather than as equipment that has no, or virtually no, practical use other than for torture, inhuman or degrading purposes. This is demonstrated most clearly by the inclusion of devices such as Taser in Annex II (rather than Annex I) to the draft Council Regulation of the Commission of the European Communities.³¹
 - (b) The export of devices such as Taser should be strictly controlled and is prohibited in certain circumstances.

Investigation

30. The fundamental nature of the right to life under Article 2 ECHR also has implications for the investigation of cases where lethal or potentially lethal force is used. The European Court has repeatedly insisted that there must be an effective and independent investigation whenever anyone is killed as a result of the use of force by law enforcement authorities, the purpose of which is to secure the effective implementation of domestic laws safeguarding life and to hold those responsible to account.³² That investigation must provide for the involvement of the family of the deceased and be capable of ascertaining the circumstances in which the incident took place.³³

D. RESEARCH INTO OPERATIONAL NEED FOR TASER

31. As a result of Patten Recommendations 69 and 70,³⁴ the Secretary of State for Northern Ireland established a UK Steering Group³⁵ in June 2000 to lead research to establish whether a less potentially lethal alternative to baton rounds is available and to review the public order equipment which is available or which could be developed in order to expand the range of tactical options available to operational commanders. The UK Steering Group, currently chaired by the Northern Ireland Office, includes representatives from accountability bodies, senior police officers, practitioners and others

³⁰ Economic and Social Council Commission on Human Rights, 59th session, 13th January 2003 (E/CN.4/2003/69) and draft Council Regulation of the Commission of the European Communities, 30th December 2002 (E/CN.4/2003/69).

³¹ Draft Council Regulation of the Commission of the European Communities, 30th December 2002 (E/CN.4/2003/69).

³² *Jordan v UK* 24746/94 (4th May 2001), para.109; *Makaratzis v Greece* 50585/99 (20th December 2004), para.s 73-74; and *Ramsahai v Netherlands* 52391/99 (10th November 2005).

³³ *Ibid.*

³⁴ *Report of the Independent Commission for Northern Ireland. A New Beginning: Policing in Northern Ireland*, September 1999 (the Patten Report). The Patten Report made in total 175 recommendations regarding policing in Northern Ireland.

³⁵ Steering Group on Alternative Policing Approaches to the Management of Conflict.

possessing an extensive range of scientific, technical and operational experience in conflict management issues. More specifically, the Group comprises representatives from the Association of Chief Police Officers, the Defence Science and Technology Laboratory, Her Majesty's Inspectorate of Constabulary, the Home Office, the Home Office Scientific Development Branch,³⁶ the Ministry of Defence, the Northern Ireland Office, the Northern Ireland Policing Board and the PSNI.

32. Between April 2001 and December 2002, the Police Scientific Development Branch of the Home Office (PSDB) carried out an evaluation of Taser devices. The results were published³⁷ and then summarised in the Third Report prepared by the Steering Group. The purpose of the evaluation was to answer, as completely and accurately as possible within the available time, how well Tasers met the police operational requirement for a less lethal tactical option.³⁸
33. Only the two major suppliers of Tasers at that time, Tasertron and Taser International, submitted their products to PSDB for evaluation. The information used for the evaluation came from four sources: the manufacturers, tests carried out by PSDB, handling trials in March 2002 and information from international contacts based on operational experience. The models submitted by Tasertron for evaluation were the TE86, TE93, TE95 and TE95HP. The models submitted by Taser International were the 34000 series, the M18 and the M26.³⁹
34. PSDB noted that Tasers were sufficiently accurate for many operational scenarios at distances of less than 15 feet (4.6 metres) but became increasingly inaccurate between that distance and the maximum distance of 21 feet (6.4 metres).⁴⁰ PSDB stated that "international studies have shown the effectiveness of the taser to vary from 50% to a reported 100% when used in probe mode, ... touch-stun mode... or as a deterrent".⁴¹
35. The PSDB found that using Tasers against a target doused in a flammable solvent carries a risk of igniting the target. It strongly recommended that Tasers not be used against a subject who has been sprayed with either CS spray or PAVA⁴² if it is possible to avoid doing so.⁴³ It also warned that extreme caution must be exercised when using Taser on a subject who is suspected of being covered in any other flammable solvent, such as strong alcohol (e.g. undiluted spirits) or petroleum spirit, or in a dangerous environment, such as a petrol station. The Steering Group also highlighted this danger in its Third Report, noting that on at least two occasions when Tasers had been used

³⁶ Formerly the Police Scientific Development Branch of the Home Office.

³⁷ *PSDB Evaluation of Taser Devices*, Publication No. 9/02 (2002).

³⁸ Steering Group, Third Report, 2002, p.45, para. 2.

³⁹ Ibid, p.46, para.s 7 and 8.

⁴⁰ Ibid, pp.48-49.

⁴¹ Ibid, p.51, para. 26.

⁴² Chemical incapacitant spray containing pelargonyl vanillylamide. PAVA is the synthetic equivalent of capsaicin (the active ingredient of natural pepper).

⁴³ Steering Group, Third Report, p.79, para. 132.

operationally in other countries, the Taser had ignited subjects who were soaked in a flammable liquid.⁴⁴

36. The PSDB also reviewed international use of Tasers. It examined their use by the Victoria Police Department, Canada, the Royal Canadian Mounted Police and the Seattle Police. It also considered deaths and injuries and training.⁴⁵

37. The PSDB concluded that:

“Tasers have a number of characteristics that may make them suitable for use by UK police forces”.⁴⁶

However, it noted that Tasers are not 100% effective, generally due either to one or both barbs missing the target, problems with components in the Taser unit, operator error or inability of the electrical current to effect sufficient incapacitation. The PSDB also commented that Tasers are often effective without the need to fire the barbs, particularly where the threat of use induces compliance in the subject.⁴⁷

38. It is important to appreciate that the PSDB report did not address policy issues and specifically recommended that issues such as the legal and human rights implications of using Tasers should be addressed elsewhere.⁴⁸ Nor did the PSDB report assess the medical implications of the use of Tasers, to which we now turn.

E. MEDICAL IMPLICATIONS OF TASERS

39. Research into the medical implications of Taser use can be split for convenience into two parts. The first comprises research carried out by various individuals and bodies other than the Defence Scientific Advisory Council Sub-committee on the Medical Implications of Less Lethal Weapons (DOMILL). The second comprises the DOMILL research (which itself draws on other available research where necessary). We propose to deal with the research in that order.

Loss of life

40. The most serious medical risk associated with the use of Taser is loss of life resulting from the discharge of the Taser’s electrical charge. This is a controversial subject and the conclusions of scientific and medical research conflict. That there have been a number of sudden deaths reported after the use of Taser is not in doubt. How far the evidence has established a causal link between death and the use of Taser, either as a sole direct cause or as a contributory cause, is disputed.

⁴⁴ Ibid, p.56, para. 51.

⁴⁵ Ibid, pp.70-79.

⁴⁶ Ibid, p.79, para. 128.

⁴⁷ Ibid, p.79, para. 129.

⁴⁸ Ibid, p.79, para. 131.

The Kornblum and Reddy research

41. Ronald Kornblum (a former Chief Medical Examiner Coroner for Los Angeles) and Sara Reddy analysed 16 deaths associated with Taser recorded in Los Angeles County in the period 1983-1987.⁴⁹ All were males within the age range 20-40 years who had a history of abuse of controlled substances. All but three were under the influence of cocaine, phencyclidine (PCP) or amphetamine. All were behaving in a “bizarre or unusual fashion” but were unarmed. The study reported that “officers used Tasers to try to subdue the subject. In each case, what started out as a relatively benign situation escalated into a belligerent confrontation with the police and eventually resulted in the death of the suspect”.⁵⁰
42. The time interval between Taser application and death in those cases ranged from 15 minutes to three days. Five deaths occurred at 15 minutes, three at 30 minutes and three at 45 minutes. Between one and eight Taser dart wounds were present on the bodies. Three victims also had gunshot wounds and four had bone fractures. Based on the levels of drugs detected in the bodies, Kornblum and Reddy concluded that the cause of death could be attributed to drugs in 13 of the 16 cases.⁵¹ Two cases were certified as having been caused by electrical injuries. Kornblum and Reddy however asserted that in the first of these cases, the multiple application of Taser should not have been a determining factor because electrical current is “not cumulative” and the death “clearly” fitted into “the cocaine category” whilst in the other case, where the victim had suffered cardiac arrest, Kornblum and Reddy considered that the victim’s heart could have suffered an arrhythmia from a number of factors: PCP, excitement and/or Taser use.⁵²

Allen’s criticisms

43. Kornblum and Reddy’s conclusions were the subject of technical criticism by Terence Allen, former Deputy Medical Examiner of Los Angeles.⁵³ Allen’s major complaint was that “the authors entirely ignore ... that certain medical conditions, including drug use and heart disease, may increase the risk that the Taser will be lethal”.⁵⁴
44. Allen was critical of the failure by Kornblum and Reddy to report the location of the Taser barbs or wounds on the body as this “could aid in determining whether an electrical current may have passed through the heart region”.⁵⁵ He was also critical that the number and duration of Taser shocks per Taser barb were not reported: this too “is important because the risk of ventricular

⁴⁹ R. N. Kornblum and S. K. Reddy, *Effects of the Taser in fatalities involving police confrontation*, Journal of Forensic Sciences, Vol. 36, 1991, pp.434-448.

⁵⁰ Ibid, p.440.

⁵¹ Ibid, p.446.

⁵² Ibid, p.446.

⁵³ T. B. Allen, *Discussion of ‘Effects of the Taser in fatalities involving police confrontation’*, Journal of Forensic Sciences, Vol. 37, 1992, pp.956-958.

⁵⁴ Ibid, p.956.

⁵⁵ Ibid, p.956.

fibrillation increases not only with the amount of current but also with the duration of its application”.⁵⁶

45. Allen was the deputy medical examiner assigned to investigate one of the two cases where death was certified as having been caused by electrical injuries and subsequently disputed by Kornblum and Reddy. Allen suggested that the reason why he was one of only two medical examiners in the Los Angeles office to list Taser on the death certificate was “because pathologists in Los Angeles were under pressure from law enforcement agencies to exclude the Taser as a cause of death”.⁵⁷ Allen concluded that if those deaths due to gunshot wounds, blunt force trauma or physical restraint were excluded from the study “then we have nine individuals who were alive and active, collapsed on taser, and did not survive. In my opinion, the Taser contributed to at least these nine deaths”.⁵⁸
46. Allen’s overall assessment was that whilst Taser may be “generally safe in healthy adults”, pre-existing heart disease, psychosis and the use of drugs including cocaine, PCP, amphetamine and alcohol “may substantially increase the risk of fatality”.⁵⁹

Research by the Canadian Police Research Centre

47. In August 2004, the Canadian Association of Chiefs of Police commissioned the Canadian Police Research Centre (CPRC) to conduct a comprehensive review of the existing scientific research and data and provide a national perspective on the safety and use of Tasers⁶⁰ in police work in Canada and around the world.⁶¹ The intent of the report was “[t]o provide guidance and assistance to the Canadian police community in reviewing the current operational use of [Tasers] and the development of future training programs [sic], governing policies and procedures”.⁶²
48. The focus of the CPRC’s review was: (i) the medical safety of Tasers; (ii) the policy considerations for police Taser operations; and (iii) the analysis of the medical condition excited delirium.⁶³
49. In its report published in August 2005, the CPRC concluded that:
 - (a) definitive research or evidence did not exist that implicated a causal relationship between the use of Taser and death;⁶⁴

⁵⁶ Ibid, p.956.

⁵⁷ Ibid, p.957.

⁵⁸ Ibid, p.957.

⁵⁹ Ibid, p.957.

⁶⁰ Referred to by the CPRC in its report as conducted energy devices, although only the Taser M26 and X26 were reviewed.

⁶¹ To guide its activities the CPRC established a Steering Committee which included medical professionals, police officers, police trainers, policy analysts and stakeholder representatives across Canada. CPRC also collaborated with the Victoria Police Department who were concurrently studying Tasers on behalf of the British Columbia Office of the Police Complaints Commissioner.

⁶² CPRC Technical Report, *Review of Conducted Energy Devices, TR-01-2006*, 22 August 2005 (CPRC Report), Executive Summary, p.i.

⁶³ Ibid, Executive Summary, p.i.

- (b) existing studies indicated that the risk of cardiac harm to subjects of Taser was very low in healthy subjects but that the research called “for a greater understanding of [Taser] effects on vulnerable subjects such as those that are intrinsically and/or extrinsically compromised (such as substance abuse and/or mentally ill)”;⁶⁵
- (c) excited delirium, although not a universally recognised medical condition, was gaining increasing acceptance as a main contributor to deaths proximal to Taser use;⁶⁶
- (d) the issue related to multiple Taser applications and its impact on respiration, pH levels and other associated physical effects offered a plausible theory on the possible connection between deaths, Taser use and people exhibiting the symptoms of excited delirium;⁶⁷
- (e) police officers needed to be aware of the adverse effects of multiple, consecutive Taser cycles on a subject.⁶⁸

Other injuries

- 50. These are other injuries directly associated with Taser use. Predominantly they include injuries resulting from muscle contractions, falls⁶⁹ and ocular trauma caused by a Taser barb penetrating the eye.⁷⁰
- 51. Perhaps surprisingly, there have been few reported cases of such injury and the risk of head injury or long-bone fracture associated with Taser use is considered to be low.⁷¹ Minor burns caused by contact with the barbs have been reported but these appear to have been superficial and, it seems, unlikely to result in permanent scarring.⁷²
- 52. Concerns have been raised about the potential for Tasers to cause dysfunction of pacemakers and implanted defibrillators. This is dealt with in more detail below where we consider the recent work of DOMILL.⁷³

Effects on children

- 53. The limited research available on the particular effects of Taser on children identifies two main sources of risk to children. First, a heightened risk of

⁶⁴ Ibid, Executive Summary, p.v.

⁶⁵ Ibid, p.13.

⁶⁶ Ibid, Executive Summary, p ii.

⁶⁷ Ibid, Executive Summary, p.v.

⁶⁸ Ibid, Executive Summary, p v.

⁶⁹ A. Bleetman and R. Steyn, *The Advanced Taser: a Medical Review*, 27th April 2003, p.60.

⁷⁰ W. Ng and M. Chehade, *Taser penetrating ocular injury*, *American Journal of Ophthalmology*, Vol. 139, Issue 4, April 2005, pp.713-715.

⁷¹ *PSDB Evaluation of Taser Devices*, Publication No. 9/02 (2002), p.83.

⁷² A. Bleetman, R. Steyn and C. Lee, *Introduction of the Taser into British policing. Implications for UK emergency departments: an overview of electronic weaponry*, *Emergency Medical Journal* (2004).

⁷³ At para.s 82-92 below.

cardiac arrest resulting from ventricular fibrillation.⁷⁴ Secondly, a greater risk of injury from the penetrative effects of Taser barbs.

54. A recent study investigated the effects of neuromuscular incapacitation devices, such as Taser, on the hearts of pigs.⁷⁵ The study used adult domestic pigs chosen to simulate human bodyweights of between 30kgs and 120kgs. Researchers used a device that provided the same waveform and pulse duration as the X26 Taser, but which could be adjusted to provide increasing levels of electrical charge far beyond that which could be produced by the X26.
55. This study found that the safety index for such devices strongly correlated with increasing weight: as the weight of the pig subjected to Taser increased, so did the safety index. Thus a 30kg pig had a safety index of 15 compared to a 117kg pig with a safety index of 42. The Canadian Police Research Centre has interpreted these results as suggesting that those with a lower body weight (e.g. children) have lowered margins of safety when exposed to electrical current.⁷⁶
56. In March 2005, the Joint Non-Lethal Weapons Human Effects Center of Excellence (HECOE) conducted a human effectiveness and risk characterisation study for electromuscular incapacitation devices, including the M26 and X26 Tasers.⁷⁷ In assessing the risk of ventricular fibrillation, the HECOE report referred to research carried out by Taser International into the relationship between ventricular fibrillation and body weight and concluded that although healthy adults and larger children would not be at significant risk from ventricular fibrillation, the absence of information meant that the possibility of “highly sensitive” children experiencing ventricular fibrillation could not be ruled out.⁷⁸
57. It has also been suggested that the penetrative effects of Taser barbs may be more severe for children than adults. Neil Corney, Research Associate for the Omega Foundation, has observed that the distance between the skin of a child and his/her vital organs is less than in adults. This, he considers, makes it easier for the metal barbs to penetrate blood vessels and vital organs and thus increases the likelihood of causing significant damage.⁷⁹

⁷⁴ Ventricular fibrillation is a condition in which there is uncoordinated contraction of the cardiac muscle of the ventricles of the heart as a result of which the heart fails to adequately pump the blood. If the arrhythmia continues for more than a few seconds, blood circulation will cease. Ventricular fibrillation is a cause of cardiac arrest and sudden cardiac death.

⁷⁵ W.C. McDaniel et al, *Cardiac Safety of Neuromuscular Incapacitating Defensive Devices*, Pacing and Clinical Electrophysiology, Vol. 28, January 2005, pp.284-287.
⁷⁶ CPRC Report, p.15.

⁷⁷ The Joint Non-Lethal Weapons Human Effects Center of Excellence, *Human Effectiveness and Risk Characterization of the Electromuscular Incapacitation Device – A Limited Analysis of the TASER*, Part 1 Technical Report, March 2005, p.ii. The study involved the holding of three workshops: data sharing, peer consultation, and independent external review.

⁷⁸ Ibid, p.63.

⁷⁹ Neil Corney, Omega Foundation, cited in Amnesty International, *Report of seminar*, Belfast, 25th September 2006.

The effects of Taser on pregnancy

58. The effects of Taser on pregnancy are not fully known. One reported incident in the US indicated that there may be a link between Taser and miscarriage. In that case, a woman who was six-months pregnant miscarried twelve hours after Taser was used on her. While the woman successfully claimed compensation for her loss from the city authorities, the autopsy report did not conclude that there was any link between the electro-shock and her miscarriage.⁸⁰
59. A medical study by L.E. Mehl of the University of Texas Health Centre also indicated that there may be some link between Taser and miscarriage.⁸¹ Mehl examined the case of a woman who spontaneously miscarried seven days after being shocked with a Taser. Mehl concluded that there was a causal link between the exposure to Taser and the miscarriage seven days later.⁸² The report gave examples of cases where a mother showed no symptoms following exposure to low-voltage electro-shock, while the consequences of the shock were devastating for the foetus. Mehl indicated that the current provided by Taser is within the range where foetal injury could occur⁸³ and that the uterus and amniotic fluid surrounding the foetus are electrical conductors which would deliver electricity to the foetus and potentially cause cardiac arrest.⁸⁴ Mehl's theory has been challenged by the Stratbucker study, which maintained that the uterus provides a Faraday protective shield from the effects of Taser.⁸⁵ However, the Defence Science and Technology Laboratory (Dstl) has stated that, in its view, Stratbucker is incorrect:

“... the uterus and amniotic fluid will have conductivities similar to muscle and this would not preclude current flow reaching the foetus.”⁸⁶

60. The HECO report referred to above⁸⁷ in relation to the effects of Taser on children also reviewed literature on the effects of electro-shock on pregnancy.⁸⁸ The report referred to a number of studies suggesting that electro-shock does not impact on pregnancy⁸⁹ and concluded that the overall risk of developmental effects of electro-shock is probably low. However, the HECO report acknowledged that the available medical research is limited and called for further study.⁹⁰

⁸⁰ The Stanford Criminal Justice Centre, *Use of Tasers by law enforcement agencies: guidelines and recommendations*.

⁸¹ L. E. Mehl, *Electrical injury from Taser and miscarriage*, Acta. Obstet. Gynecol. Scand., 1992.

⁸² Ibid, cited in *The medical implications of the use of electrical incapacitation devices (Tasers)*, DSTL1/PUB20749, April 2002.

⁸³ Ibid, cited in J. Ruggieri, *Lethality of Taser Weapons*, 28th July 2005.

⁸⁴ Ibid, cited in Bleetman and Steyn, *The Advanced Taser: A Medical Review*, 27th April 2003, p.10.

⁸⁵ Personal communication from Dr Stratbucker via Taser International cited in Bleetman and Steyn, *The Advanced Taser: A Medical Review*, 27th April 2003.

⁸⁶ *The medical implications of the use of electrical incapacitation devices (Tasers)*, DSTL1/PUB20749, April 2002.

⁸⁷ At para. 52 above.

⁸⁸ The Joint Non-Lethal Weapons Human Effects Centre of Excellence, *Human Effectiveness and Risk Characterization of the Electromuscular Incapacitation Device – A Limited Analysis of the TASER*, Part 1 Technical Report, 1st March 2005 (HECOE report), p.18.

⁸⁹ Einarson et al. (1997), Nakken et al. (1999) and DeBattista et al. (2003).

⁹⁰ HECO report, p.19.

The Defence Scientific Advisory Council Sub-committee on the Medical Implications of Less Lethal Weapons (DOMILL)

61. The medical implications of using Tasers were considered by the Defence Scientific Advisory Council Sub-committee on the Medical Implications of Less Lethal Weapons (DOMILL). Its focus was the M26 Taser model supplied by Taser International and it addressed the medical implications of an operative trial proposed by ACPO under ACPO Guidance. DOMILL issued a statement in December 2002 and a summary was included in the UK Steering Committee's Third Report which was also published in December 2002.
62. On behalf of DOMILL (and to inform its statement), the Defence Science and Technology Laboratory (Dstl) undertook a wide-ranging review of information that was either publicly available or supplied by the manufacturers or police forces in North America.⁹¹ Over 800 references were reviewed, which included basic neurophysiological science, peer-reviewed scientific and medical papers, evidence on risks supplied by the manufacturers, newspaper reports, surveys of effectiveness and injuries supplied by law enforcement agencies in the US and Canada and peer-reviewed papers on the hazardous effects of electric fields on physiology.⁹²
63. Dstl noted in its technical literature review that Kornblum and Reddy's paper in 1991 was "the first, and indeed the last comprehensive review of fatalities associated with the use of Tasers".⁹³ Dstl further noted that it had found no subsequent refutation of Allen's allegation that pathologists in Los Angeles were under pressure from law enforcement agencies to exclude the Taser as a cause of death or any response to Allen's criticism of Kornblum and Reddy's paper.⁹⁴
64. Dstl noted that, historically, there had been no objective scientific studies (or even ad-hoc studies) to determine the magnitude and distribution in the body (animal or human) of electric currents from Tasers and that:

"This knowledge is fundamental to an understanding of the potential interaction of Taser currents with excitable tissue such as the heart".⁹⁵

Dstl undertook computer-based modelling of the interaction of Taser pulses with the body.

65. DOMILL endorsed Dstl's approach and reviewed the substantial body of information compiled by Dstl.⁹⁶ From this, DOMILL concluded that:

⁹¹ *The medical implications of the use of electrical incapacitation devices (Tasers)*, DSTL1/PUB20749, April 2002.

⁹² Steering Group, Third Report, p.81, para. 140.

⁹³ *The medical implications of the use of electrical incapacitation devices (Tasers)*, DSTL1/PUB20749, April 2002, p.65, para. 9.2.14.

⁹⁴ Ibid, p.66, para. 9.2.21.

⁹⁵ Ibid, p.72, para. 10.2.1.

⁹⁶ Steering Group, Third Report, p.81, para. 142. Dstl produced a further report, *An update on the review of the medical implications of use of Electrical Incapacitation Devices*, DSTL/PUB20750, for DOMILL in September 2002.

- (a) On the available evidence, with regard to the high-power M26 Taser, the risk of death from a primary injury (immediate or delayed consequences of electrophysiological phenomena resulting directly from the current flow in the body) is “low” in keeping with low-power Tasers. However, the confidence of this conclusion for the M26 Taser was not as high as it was for low-power Tasers because of the smaller number of operational uses and the “dearth of information on the potentially adverse electrophysiological effects of the high current flow in the body, particularly in subjects who may have a predisposition to cardiac arrhythmias⁹⁷ arising from drug-use, pre-existing heart disease or genetic factors”.⁹⁸
 - (b) The risk of life threatening or other serious injuries, such as the loss of an eye, was “very low”. But serious burns could result from the combustion of flammable solvents on the subject’s clothes if ignited by the use of Taser.⁹⁹
 - (c) Falls from Taser use may result in abrasions, scratches and minor lacerations and minor secondary trauma may be caused by the penetration of the skin by the barbs.¹⁰⁰
 - (d) There was no experimental evidence that pro-arrhythmic factors (such as drug taking) specifically increase the susceptibility of the heart to low or high powered Tasers sufficient to cause an arrhythmic event. However, there was sufficient indication that excited, intoxicated individuals or those with pre-existing heart disease could be more prone to adverse effects from the M26 Taser.¹⁰¹
 - (e) Overall, the risk of life-threatening or serious injuries from the M26 Taser appeared to be “very low”.¹⁰²
66. DOMILL recommended that research should be undertaken to clarify the cardiac hazards associated with the use of Taser on individuals who could be considered to have a greater risk of adverse effects.¹⁰³ However, DOMILL did not consider that it was *essential* from a medical perspective that this research be completed before approval was given for the proposed M26 Taser trial under the term of the ACPO Guidance.¹⁰⁴

F. THE OPERATIONAL TRIAL OF TASER IN ENGLAND AND WALES 2003-2004

⁹⁷ Group of conditions whereby the muscle contraction of the heart is irregular or is faster or slower than normal.

⁹⁸ Steering Group, Third Report, p.83, para.s 148-149. This was also the conclusion of a 2005 Canadian study by K. Nanthakumar et al, *Cardiac Electrophysiological Consequences of Neuromuscular Incapacitating Device Discharges*, Journal of the American College of Cardiology, Vol. 48, No. 4, 2006, pp.798-804.

⁹⁹ Ibid, p.83, para.s 151-153.

¹⁰⁰ Ibid, p.84, para. 154.

¹⁰¹ Ibid, p.84, para. 159.

¹⁰² Ibid, p.84, para. 160.

¹⁰³ Ibid, p.84, para. 161.

¹⁰⁴ Ibid, p.85, para. 161.

67. Following the DOMILL statement on the medical implications of using Tasers, the Home Secretary gave authority on 30th January 2003 to proceed with an operational trial of the M26 Taser as a less-lethal option in incidents at which authority to use firearms had been granted. The operational trial commenced on 21st April 2003.
68. The trial involved five police forces: Lincolnshire Police, the Metropolitan Police, Northamptonshire Police, North Wales Police and Thames Valley Police. It was co-ordinated by the ACPO Police Use of Firearms Secretariat on behalf of ACPO. Policy and guidance documents were drawn up to govern the trial and training was provided. That policy document made it clear that:
- “... ACPO remain convinced that Taser has a role in situations where individuals are armed or otherwise so dangerous that the use of firearms, by an officer, may be necessary”.¹⁰⁵
69. The policy instructed officers that Taser would only be deployed in circumstances where firearms officers are authorised to carry firearms and would only be deployed alongside conventional firearms.¹⁰⁶ The command structure was to be in accordance with the ACPO Manual of Guidance on Police Use of Firearms.¹⁰⁷

Evaluation of the operational trial

The PricewaterhouseCoopers LLP evaluation

70. PricewaterhouseCoopers LLP (PWC) was commissioned to undertake an independent evaluation of the operational trial of Taser in England and Wales. The terms of reference for this evaluation were:
- “To evaluate how successfully Taser devices have been used as a supplementary option to other deployment methods, namely firearms, dogs, baton rounds and irritant spray”.¹⁰⁸
- The evaluation did not cover any medical assessment of the use of Tasers, nor did it include making judgments on the operational decisions to deploy Taser in respect of specific incidents.¹⁰⁹
71. In the early stages of its evaluation, PWC determined a number of questions to help focus its work. Those questions were:
- (1) To what extent has Taser successfully reduced the need to use lethal force (i.e. conventional firearms) at incidents where it is deployed?

¹⁰⁵ Operational trial of Taser, policy document, para. 3.3.

¹⁰⁶ Operational trial of Taser, policy document, para. 5.1.

¹⁰⁷ The ACPO Manual of Guidance on Police Use of Firearms (ACPO Firearms Manual) was first issued in 1983 and is reviewed and updated on an ongoing basis by the ACPO Working Group on the Police Use of Firearms, whose purpose is to provide strategic direction and advice on all matters relating to the deployment of firearms: ACPO Manual, Introduction, para. 1.2.

¹⁰⁸ PricewaterhouseCoopers LLP, Final report, May 2004, para. 3.

¹⁰⁹ Ibid, para. 4.

- (2) To what extent have firearms officers accepted that Taser is a useful supplementary option to existing conflict management technologies?
- (3) To what extent have commanders accepted that Taser is a less lethal option that they are content to have deployed?
- (4) Is there evidence of public confidence in the police's ability to deploy Taser appropriately and with restraint?¹¹⁰

In answering these questions, PWC collected data from two main sources: (i) completed Taser deployment forms and (ii) semi-structured interviews and meetings with relevant officers from the five trial forces.

72. PWC reviewed 'uses' of Taser, i.e. incidents where Taser was drawn, fired or applied in stun mode (not merely where it was deployed). 58 such 'usages' were analysed, of which only 14 resulted in the actual discharge of the Taser in probe mode¹¹¹ and two in stun mode.
73. Table 1 sets out the percentage breakdown of Taser use by incident type.

Table 1: Percentage breakdown of Taser use by incident type

Incident type	Percentage*
Domestic incident	15
Shooting	2-3
Robbery	8
Abduction	5
Assault	6
Threatening police	16
Threatening neighbour	7
Possession of gun	Over 30
Possession of knife	Over 40
Search	12
Suicide	10

* The total exceeds 100% because of overlap between incident types.

¹¹⁰ Ibid. para. 17.

¹¹¹ One at a dog.

74. Table 2 records the reasons given by officers for using Taser.

Table 2: Recorded reasons for Taser use

Reason	Percentage*
Self-protection	Over 75
Prevention of crime	22
Protection of public	45
Secure evidence	10
Effect arrest	Over 60
Effect search	Over 15
Prevent harm	45
Prevent escape	28

* The total exceeds 100% because of overlap of reasons in many cases.

The decision to use Taser was spontaneous in 48 of the 58 cases. In 19 incidents (33%) officers commented that Taser was used on subjects who were under the influence of alcohol. In 13 incidents (22.5%) Taser was used on subjects noted to be under the influence of drugs. There were no recorded incidents of accidental use. In 95% of cases the subject was successfully arrested.

75. In relation to the first question addressed by PWC, the overall conclusion drawn was:

“... the evidence suggests that Taser has been effective in preventing incidents from escalating to the point where lethal force is required. In many incidents, the threat of Taser – rather than its actual use – has made the individual become compliant”.¹¹²

76. This is highly significant. As noted above, the ACPO policy document governing the trial made it clear that “Taser has a role where... the use of firearms... may be necessary”. But the PWC finding suggests that Taser was, in fact, used at some earlier point, i.e. before incidents escalated to the point where lethal force would be justified.

77. In relation to the second question addressed by PWC, the conclusion drawn was that Taser appeared to have been widely accepted by all the trial police forces as a helpful additional piece of equipment. The report documents that officers from the Metropolitan Police expressed a clear preference for Taser over the baton gun because it was more flexible.¹¹³

78. In relation to the third question, PWC concluded that commanders had not fully accepted that Taser is a less lethal option that they are content to deploy. Partly this is because some firearms officers considered that Taser could have been authorised more often even within the constraints of the ACPO policy governing the trial. More significantly, it appears that the general consensus

¹¹² PricewaterhouseCoopers LLP, Final report, May 2004, para. 42.

¹¹³ Ibid, para. 47.

among officers was that the Taser authorisation process should be de-coupled from the authorisation process for conventional firearms, allowing it to be deployed at incidents where the deployment of firearms might not be authorised. According to PWC, the main concern was that opportunities to use Taser to resolve violent or potentially violent incidents were being missed. Some officers cited domestic violence incidents as the type of situation where Tasers could be deployed.¹¹⁴

79. Although evidence of the public's attitude to Taser use was sparse and further research was commissioned from PWC about this, the report suggested that "the public have not reacted negatively to Taser, particularly where forces have made efforts to consult with and inform the public at the start of the trial".¹¹⁵ However, PWC's evaluation also suggested that 63% of the public were not aware of what a Taser is, 71% did not know Taser was in use during the trial and only a small fraction of those that knew what a Taser was also knew how it worked.¹¹⁶

DOMILL's evaluation

80. DOMILL also considered the results of the operational trial. The Home Office and ACPO provided DOMILL with a synopsis of each incident in the operational trial during which Taser was used. DOMILL was also given the opportunity to review some of the post-incident medical assessments by medical examiners. DOMILL concluded that there had been no primary or secondary injuries that could be classed as life threatening, unexpected or potentially leading to disability.¹¹⁷

The Independent Police Complaints Commission

81. The Independent Police Complaints Commission was charged with overseeing post-incident investigations where Taser was used in the operational trial. Although it did not publish a report, it did indicate its view in a press statement on 15th September 2004, in which the Chair of the IPCC stated:

"The IPCC approves of the decision to widen use of the Taser as a less-lethal option to firearms. The year-long trial of the Taser and experience from police firearms incidents over many years show that it is wise to extend the Taser's use to all firearms units that seek it ... in the year-long trial that was carried out by five police forces, nobody suffered serious injuries".¹¹⁸

The IPCC did not at the time nor has it subsequently undertaken specific studies on Taser or collated statistics on use.

¹¹⁴ Ibid, para. 78.

¹¹⁵ Ibid, para. 94.

¹¹⁶ PricewaterhouseCoopers LLP, Evaluation of Taser - Public Opinion Survey, May 2004.

¹¹⁷ Steering Group, Fifth Report, p.44.

¹¹⁸ IPCC Press Statement, *Independent Police Complaints Commission welcomes decision to allow firearms officers to use Taser*, 15th September 2004.

G. FURTHER RESEARCH BY THE STEERING GROUP AND OTHER BODIES IN THE UK

82. The residual medical concerns over the M26 Taser raised by DOMILL (see para. 66 above) were investigated by the Defence Science and Technology Laboratory (Dstl).¹¹⁹

83. The information provided was reviewed by DOMILL and contributed to a second statement on the medical implications of the use of the M26 Taser that was published in July 2004. DOMILL concluded:

“The results of the study, together with evidence gleaned from the literature, suggest that some frequently abused drugs have the potential to contribute to any cardiac-related morbidity or mortality that may arise in the context of Taser use. Furthermore, it seems reasonable to assume that this conclusion could be generalised to other emotionally charged and possibly violent confrontations with law enforcement personnel”.¹²⁰

84. DOMILL recommended:

“Officers should be aware that the risk of any adverse response in the aftermath of Taser deployment may be higher in drug-impaired individuals and, accordingly, they should be vigilant of any unusual behaviour displayed by the apprehended person that may signal the need for early medical intervention”.¹²¹

85. On the question of the vulnerability of those with cardiac pacemakers and other implantable electronic devices, DOMILL concluded that the effects of the M26 Taser electrical fields on the function of the pacemaker are likely to be limited and unlikely to be permanent. DOMILL also concluded from the profile of those against whom Taser is most frequently used that the likelihood of an individual with a pacemaker being the target of a Taser was considerably lower than the population at large.¹²²

86. DOMILL’s overall conclusion was that:

“The risk of life-threatening or serious injuries from the M26 Taser is very low”.¹²³

DOMILL went on to recommend that six months after the commencement of the extended operational trial, the Home Office should provide it with a report outlining the circumstances of every use of the M26 Taser, the post-incident assessments undertaken by the forensic medical examiner (FME) and the

¹¹⁹ Dstl, *Assessment of the effects of Advanced Taser M26 output on active implantable medical devices*, DSTL/PUB 20750, September 2002 and Dstl, *Medical implications of the use of the M26 Taser – the effects of drugs abuse on the cardiac action potential in sheep isolated Purkinje fibres*, DSTL/PUB20751, January 2004.

¹²⁰ DOMILL Second Statement, July 2004, para. 9.

¹²¹ Ibid, para. 10.

¹²² Ibid, para. 15.

¹²³ Ibid, para. 18.

clinical consequences noted by the FME or clinical staff. It also recommended that it should be advised as soon as practical of any primary or secondary injury that could be classed as life-threatening, unexpected or potentially leading to disability.¹²⁴

The X26 Taser

87. In May 2003, the manufacturers of the M26 Taser introduced another Taser weapon, the X26. The X26 Taser pulse has a lower peak voltage and a longer duration than the M26.¹²⁵ ACPO considered that this may have operational benefits over the M26 Taser and requested the Police Scientific Development Branch (PSDB) to conduct a handling trial.

88. Dstl produced a report summarising the available evidence on the characteristics, operational performance and medical assessments worldwide of the X26 Taser in January 2005.¹²⁶ Dstl reported that the data indicated that the X26 Taser has “about half the charge per pulse as the M26... and about one tenth of the energy in each pulse.” However, it noted that although the X26 appeared to have less risk to the heart based on a lower peak current:

“... the extended duration of that current could reduce the threshold for stimulation of excitable tissue.”¹²⁷

89. The PSDB produced a further report in March 2005¹²⁸ covering a number of outstanding issues in relation to the M26 Taser and evaluating the X26 Taser. It concluded:

“The further testing... has shown that there is a significant risk of ignition if a Taser is fired at a target that has been previously sprayed with either CS or PAVA incapacitant spray. CS spray is about twice as likely as PAVA spray to ignite ...

It is therefore strongly recommended that the Taser is not used against a subject who has already been sprayed with either CS or PAVA, when they are present with a flammable solvent, if it is possible to avoid doing so. Extreme caution must also be exercised when using the Taser on a subject who is suspected of being covered in any other flammable liquid, such as strong alcohol (e.g. undiluted spirits) or petroleum spirit, or in a dangerous environment, such as a petrol station”.¹²⁹

The second PSDB report raised the question of the legal implications of the use of Taser, including under the Human Rights Act 1998, but recorded that “[m]any of these issues have been dealt with by ACPO, the Home Office and

¹²⁴ Ibid, para. 21.

¹²⁵ DOMILL Statement on the comparative medical implications of the use of the X26 Taser and the M26 Advanced Taser, 7th March 2005, para. 9.

¹²⁶ Dstl, *The X26 Taser – a review of the experimental and operational data related to an assessment of the medical implications of use*, DSTL/PUB20752, January 2005.

¹²⁷ Ibid, pp.4, 6.

¹²⁸ *PSDB Further Evaluation of Taser Devices*, Publication No. 19/05 (2005).

¹²⁹ Ibid, para. 7.1.

the NIO”.¹³⁰ However, so far as we are aware, there is no definitive record of this in the public domain.

90. Dstl also produced a report on the potential cardiac risks associated with the M26 and X26 Tasers in March 2005.¹³¹ The data underpinning the report implied a large safety margin for induction of rhythm disturbances from Taser-like electrical pulses. The report concluded:

“... it is considered unlikely that the discharge from the M26 and X26 Taser devices will influence cardiac rhythmicity by a direct action on the heart.”¹³²

However, Dstl acknowledged that the possibility that other factors (e.g. illicit drug intoxication, alcohol abuse, pre-existing heart disease) may modify the threshold for generation of cardiac arrhythmias could not be excluded and that, similarly, other responses to Taser deployment¹³³ “may, in themselves, predispose to an adverse cardiac outcome independent of the primary (electrical) action of the Taser devices”.¹³⁴

91. DOMILL’s statement on the comparison of the M26 Taser and the X26 Taser was also published in March 2005. It concluded:

“The risk of a life-threatening event arising from the direct interaction of the currents of the X26 Taser with the heart, is less than the already low risk of such an event from the M26 Advanced Taser”.¹³⁵

DOMILL also noted that if the X26 was more effective than the M26 in stimulating skeletal muscle, as claimed, then falls may be less controlled, resulting in a greater likelihood of head injury after contact with surfaces. However, the risk of serious head injury was still considered to be “low”.¹³⁶

92. In October 2005, Dstl completed a further study assessing the risk of a “cardiac event” in someone subjected to either the M26 or X26.¹³⁷ This study involved modelling the path of current flow in the body using computational electromagnetic modelling. In conjunction with its earlier work, Dstl concluded that it was unlikely that the discharge from the M26 and X26 Tasers would influence cardiac rhythmicity by a direct action on the heart, with certain caveats relating to cases involving illicit drugs, pre-existing heart disease and other factors.¹³⁸

¹³⁰ Ibid, para. 6.3.5.

¹³¹ Dstl, *Effects of simulated M26 and X26 Taser waveforms on the guinea-pig isolated heart*, DSTL/PUB20754, March 2005.

¹³² Ibid, para. 5.1.

¹³³ For example, arrhythmias precipitated by stress - or exercise - induced catecholamine release.

¹³⁴ Dstl, *Effects of simulated M26 and X26 Taser waveforms on the guinea-pig isolated heart*, DSTL/PUB20754, March 2005, Executive Summary.

¹³⁵ DOMILL Statement on the Comparative Medical Implications of the use of the X26 Tasers and the M26 advanced Taser, para. 24.

¹³⁶ Ibid, para. 23.

¹³⁷ Dstl, *Modelling current flow in the human body from the M26 and X26 Taser devices*, DSTL/PUB20755, October 2005.

¹³⁸ Ibid, p.181.

H. THE EXTENSION OF TASER TO ALL FORCES IN ENGLAND, SCOTLAND AND WALES 2004

93. Following the operational trial in England and Wales and DOMILL's second statement, the then Home Secretary agreed on 15th September 2004 to allow Chief Officers of all forces in England and Wales to make the M26 Taser available to authorised firearms officers as a less lethal alternative for use in situations where a firearms authority has been granted, in accordance with the criteria laid down in the ACPO Manual of Guidance on Police Use of Firearms.
94. On 22nd March 2005, the then Home Secretary also authorised Chief Officers of all forces in England and Wales to make the X26 Taser available to authorised firearms officers as a less lethal alternative for use in situations where a firearms authority has been granted, again in accordance with the criteria laid down in the ACPO Manual of Guidance on Police Use of Firearms. The authorisation for the M26 Taser remained in force.
95. The Fifth Report of the Steering Group, published in September 2006, recorded:

“All forces in England, Wales and Scotland are now deploying TASER operationally. In all forces, Taser is deployed as a less lethal option alongside conventional firearms by authorised firearms personnel.”¹³⁹

Thus the use of Tasers in England, Scotland and Wales has now been authorised for about two and a half years.

I. CURRENT POLICY, OPERATIONAL GUIDANCE AND TRAINING ON TASER IN ENGLAND, SCOTLAND AND WALES

96. Following the decision to extend the trial use of Taser, the ACPO Policy and ACPO Guidance for Operational Use of Taser were revised.

Current ACPO Policy

97. The current ACPO Policy on the use of Taser states:

“Taser is not a replacement for existing conflict management options, but is an option that should be considered alongside others, such as negotiation, batons, incapacitant sprays, dogs and baton guns. These do not constitute a hierarchy of lawful force and should be viewed as a range of approved options from which the most proportionate and appropriate should be selected...”¹⁴⁰

98. The policy states that carriage and use of Taser will continue to be restricted to selected authorised firearms officers.¹⁴¹

¹³⁹ Steering Group, Fifth Report, para. 5.41.

¹⁴⁰ ACPO Operational Use of Taser Policy (2005), para. 2.2.

¹⁴¹ Ibid, para. 3.3.

99. In similar terms to the policy applicable in the operational trial period, the revised policy instructs officers that Taser will only be deployed in circumstances where firearms officers are authorised to carry firearms and will only be deployed alongside conventional firearms. The command structure will be in accordance with the ACPO Manual of Guidance on Police Use of Firearms (ACPO Firearms Manual).¹⁴²
100. The reference in the policy to deployment is significant. A clear distinction is made between deployment and use of Taser. Deployment is specifically dealt with but the policy does not provide detail as to the precise circumstances in which Taser can be used. Some indication, however, is provided in the ACPO Guidance on the use of Taser to which we now turn.

Current ACPO Guidance

101. The preface to the ACPO Guidance on the use of Taser indicates:

“The issue, deployment and use of the taser will conform to the well-established guidance already laid down in the ACPO Manual of Guidance on Police Use of Firearms”¹⁴³ [emphasis added]

The guidance on the use of firearms in the ACPO Firearms Manual restricts their use to circumstances where the use of lethal force is permitted under Article 2 ECHR.

102. However, elsewhere the ACPO Guidance on the use of Taser indicates that a different test may apply. For example, in the section on ‘Use’, the Guidance indicates that the use of Taser is one of a number of tactical options available to an officer who is faced with violence or the threat of violence¹⁴⁴ and that the duration of any discharge of Taser must be “proportionate, lawful, appropriate, necessary and non-discriminate”.¹⁴⁵ Because of its importance, we deal with the apparent discrepancy between this and the preface to the ACPO Guidance in some detail below.¹⁴⁶
103. The current ACPO Guidance on the use of Taser makes clear that the final decision to use Taser rests with the individual officer who will be accountable for his actions. Where circumstances permit, officers should give a clear warning of their intent to use Taser, unless to do so would unduly place any person at risk, or would be clearly inappropriate or pointless in the circumstances of the incident.¹⁴⁷ Taser should be aimed to strike the body mass below the neck. In stun mode, Taser should be pressed directly to the subject’s body.¹⁴⁸

¹⁴² Ibid, para. 4.2.

¹⁴³ Para. 1.10.

¹⁴⁴ Para. 9.1.

¹⁴⁵ Para. 9.2.

¹⁴⁶ See below at para.s 166-170.

¹⁴⁷ ACPO Operational Use of Taser Operational Guidance (2005), para. 10.1.

¹⁴⁸ Ibid, para.s 9.5 and 9.6.

104. The ACPO Guidance identifies and provides advice on specific risk factors associated with Taser in the following terms:
- (a) Where it is necessary to use Taser on a person who is exhibiting violent behaviour and who is also suffering from a mental disorder or illness, where it is possible to do so, officers should discuss options with mental health professionals.¹⁴⁹
 - (b) Where it becomes apparent that the subject has an existing medical condition or is under the influence of drugs, assessment of these additional risk factors should be made in determining the appropriate option.¹⁵⁰
 - (c) There is a risk of flammability if Taser is used against an individual who has already been sprayed with an incapacitant containing a flammable solvent (such as CS spray and PAVA). There is also a risk of flammability where the subjects' clothing is doused with other flammable liquids.¹⁵¹ The guidance requires that this heightened risk be factored in when assessing the 'appropriateness' and 'necessity' of using Taser.¹⁵²
 - (d) Use of Taser in proximity to a number of explosive formulations, including 'organic peroxide explosives', will set off such explosives. Other explosive materials may also be sensitive to electrical discharge. The guidance requires that this heightened risk for subjects who may be holding or in close proximity to an improvised explosive device, must be factored in when assessing the 'appropriateness' and 'necessity' of using Taser.¹⁵³
 - (e) Taser should not be used in circumstances where, due to the presence of a flammable substance in the atmosphere or escaping gas, its use creates an even more hazardous situation.¹⁵⁴
 - (f) There is a possibility of secondary injury following the use of Taser caused by the subject falling and striking a hard surface. Officers should therefore pay particular attention to the immediate environment and to assessing any additional risk factors.¹⁵⁵
 - (g) Officers should avoid prolonged, extended, uninterrupted discharges or extensive multiple discharges of Taser whenever practicable in order to minimise the potential for over-exertion of the subject or potential impairment of full ability to breathe over a prolonged time period.¹⁵⁶
 - (h) Due to a specific risk of injury to the eye through penetration of a barb, Taser should not be aimed so as to strike the head or neck of a subject

¹⁴⁹ Ibid, para. 7.1.

¹⁵⁰ Ibid, para. 7.3.

¹⁵¹ Such as lighter fuel, petrol and strong alcoholic spirits.

¹⁵² ACPO Operational Use of Taser Operational Guidance (2005), para.s 7.4 and 7.5.

¹⁵³ Ibid, para. 7.6.

¹⁵⁴ Ibid, para. 7.7.

¹⁵⁵ Ibid, para. 7.8.

¹⁵⁶ Ibid. para. 7.9.

unless this is wholly unavoidable. The laser sight should not intentionally be aimed at the eyes of the subject.¹⁵⁷

105. In addition, the guidance specifically advises that the persons most likely to be at greatest risk from any harmful effects of the Taser device are those also suffering from the effects of drugs or who have been struggling violently.¹⁵⁸

J. CURRENT PATTERNS OF TASER USE IN ENGLAND, SCOTLAND AND WALES

106. Figures on the use of Taser from the commencement of the original five force trial (21st April 2003) until 10th May 2006 were published by the Steering Group in its Fifth Report. These indicate that Taser was ‘used’ (i.e. drawn, arced, fired or used in stun mode) 370 times in England, Scotland and Wales in the period in question. In 212 cases, Taser was drawn, but not fired. Taken with the 16 times that it was arced but not fired, the Steering Group noted that there were a total of 228 occasions when “either drawing, sighting the red dot or arcing the Taser was sufficient to resolve the incident”.¹⁵⁹ On 127 occasions, Taser was fired in probe mode and on 15 occasions it was used in stun mode.¹⁶⁰
107. More recent figures have been made available to us. These indicate that up to 8th February 2007,¹⁶¹ there have been 624 incidents when Taser was ‘used’ in England, Scotland and Wales. In 328 cases Taser was drawn, aimed or red dotted but not fired. In 28 additional cases it was only arced. On 242 occasions Taser was fired and on 26 occasions it was used in the stun mode.¹⁶² Again, this indicates that the majority of incidents were resolved by drawing, aiming or red dotting the Taser.

Analysis of discharge of Taser in England and Wales, 2003-2006

108. The ACPO Working Group on Police Use of Firearms has provided us with summaries of all reported instances of Taser discharges in England, Scotland and Wales from the commencement of the original five force trial (21st April 2003) until May 2006. The first reported cases of Taser discharge date from June 2003. As at November 2006, a total of 155 case reports had been submitted to ACPO for the period June 2003 to May 2006.¹⁶³ This figure does

¹⁵⁷ Ibid, para. 7.10.

¹⁵⁸ Ibid, para. 11.9. The Guidance stipulates that if there is any suspicion at all that the violent behaviour of any subject is being caused by excited delirium, they should be treated as a medical emergency and conveyed directly to hospital.

¹⁵⁹ Steering Group, Fifth Report, para.s 5.35 and 5.36.

¹⁶⁰ Only the highest level of ‘use’ during each incident is recorded. Multiple uses during the same incident are only recorded once.

¹⁶¹ Annex A to Northern Ireland Office letter to Policing Board Human Rights Advisors, 19th April 2007.

¹⁶² Again only the highest level of ‘use’ during each incident is recorded. Multiple uses during the same incident are only recorded once.

¹⁶³ There was additionally one case where Taser was arced but not discharged. However, it appears that reports are not generally submitted to ACPO in such cases and therefore we have had to leave them out of account.

not represent the total number of discharges to date because some reports are still pending and reports on recent discharges have yet to be circulated.

- 109. The summaries of the reported instances of Taser discharges in England, Scotland and Wales are restricted documents and therefore we can only set out the overall figures and general trends.
- 110. Table 1 sets out the number of discharges annually.

Table 1: Annual breakdown of reported cases of Taser discharge

Year	Number of cases
2003 (from June)	12
2004	29
2005	69
2006 (to May)	45
Total	155

These figures need to be treated with some caution. The figure for 2003 only relates to the period June-December and the figures for June 2003 until September 2004 reflect the fact that during that period, only five police forces had authority to use Taser. The figures for 2006 are not complete. Furthermore some summary reports are still pending for the period in question.

- 111. Table 2 sets out the subject of Taser discharge. The vast majority were male.

Table 2: Recorded subject of Taser discharge

Male	Female	Dog¹⁶⁴
140	12	3

¹⁶⁴ Recorded as either aggressive or dangerous.

112. Table 3 sets out the condition of the subject of a Taser discharge where this was recorded.

Table 3: Recorded condition of subject of Taser discharge

Condition of subject	Number of cases*
Under the influence of alcohol	57
Under the influence of drugs	27
Mental illness/mental health issues	49

* Subjects may be recorded as demonstrating more than one condition.

113. From Table 3 it is clear that almost a third of all reported cases indicated that the subject of the Taser discharge suffered from mental illness or had mental health issues. Over 36% of reported cases indicated that Taser was discharged against individuals under the influence of alcohol, whilst around 17% of recorded discharges of Taser were against individuals under the influence of drugs.
114. Table 4 sets out the recorded incident type for the discharge of Taser.

Table 4: Recorded nature of incident where Taser discharged

Nature of incident	Number of cases*
Firearm (including suspected)	40
Bladed instrument ¹⁶⁵ (including suspected)	78
Other weapon (e.g. bottle, pipe, wood)	4
Suicide/self-harm	33
Public disorder/disturbance	20
(Violent) domestic dispute	28
Property damage	5
Robbery or burglary (including suspected)	3
Arrest/planned police operation	15

* Reported cases may fall within more than one category of incident type.

115. This demonstrates that just over a quarter of all reported cases indicated that Taser was discharged against individuals armed (or suspected of being armed) with a firearm. Close to 50% of all reported cases indicated that Taser was discharged against an individual armed (or suspected of being armed) with a bladed instrument. The majority of the cases concerning bladed instruments recorded a threat to life or serious injury of other individuals within the vicinity (either relatives/friends/partners in the domestic disturbance context or the wider public in the public disorder/disturbance context), police officers or the subject him/herself. Over 20% of reported cases indicated that Taser was discharged at a subject who was self-harming or threatening either self-harm or suicide.

¹⁶⁵ Including sword, machete, axe and knife.

116. Table 5 sets out the manner in which Taser was discharged.¹⁶⁶

Table 5: Manner of Taser discharge

Manner of Taser discharge	Number of cases*
Taser stun mode (including multiple uses)	19
Taser probe mode: single discharge	101
Taser probe mode: multiple discharges	39
Other methods of force (e.g. physical restraint, CS spray, AEPs) used before or after Taser discharged	21

* Reported cases may fall within more than one Taser discharge method category.

117. In the vast majority of reported cases, Taser appeared to be the primary use of force. Whilst around 65% of reported cases indicated that a single discharge of Taser in probe mode was employed, the more recent reports for 2006 indicated a significant trend towards multiple discharges of Taser in probe mode. The majority of reported incidents where Taser was discharged in stun mode also indicated multiple uses.
118. Since Taser has been more widely available in England, Scotland and Wales, there has been only one case in which concern has been raised about a possible link between Taser and death. On 11th October 2006, Taser was used by Durham police on Brian Loan, a 47 year old man, at his home. Three days later he died. The post-mortem report records that Brian Loan died from natural causes and the Independent Police Complaints Commission has said that there is no link between the use of Taser and his death.¹⁶⁷ However, the investigation into the cause of death has not yet been concluded and the Inquest into the death has not yet commenced. There has been no other evidence to date of serious injury caused by Taser.

K. DISCUSSION

Should Taser be treated as lethal, potentially lethal or non lethal equipment?

119. We have already summarised the most relevant evidence about the medical implications of Taser. The evidence from the United States is controversial and inconclusive. Although Kornblum and Reddy rule out any direct link between Taser use and death, they leave open the possibility that in at least one case, Taser (coupled with other factors such as PCP and excitement) may have contributed to arrhythmia, which may in turn have led to death. Allen criticises their approach and suggests that Taser may have contributed to nine deaths, although his overall conclusion is that Taser is “generally safe in healthy adults”.

¹⁶⁶ As noted in footnote 162 above, cases in which Taser was simply drawn or arced are not included because it seems that not all cases of drawing or arcing are included in the reports sent to ACPO.

¹⁶⁷ Press statement, 19th October 2006.

120. Other material that we have read and considered about the use of Taser in the United States tends to support either of these positions but the more we have analysed it, the more cautious we have become about placing very much reliance on the evidence from the United States. Not only is some of the evidence very unclear, but much of it relates to the use of Taser that is rarely regulated or controlled in any way that compares with the regulation and control required under current ACPO Policy and Guidance. Some of the examples of Taser use in the United States that we have reviewed would be wholly unacceptable anywhere in the UK. The usefulness of data relating to such use, when analysing the PSNI proposal to introduce Taser in a much more regulated and controlled environment, is therefore, in our view, limited.
121. The evidence from Canada is more helpful, particularly the research of the Canadian Police Research Centre summarised above.¹⁶⁸ While acknowledging that there was no clear evidence of a causal link between Taser use and death and that the risk of cardiac harm to health subjects was “very low”, that research highlighted the fact that there was very little understanding of the risks to more vulnerable groups, such as those suffering from mental illness, those using drugs and/or those in a state of excited delirium.
122. The lack of evidence about the risks of Taser use to more vulnerable groups is something that was also highlighted in the research relied upon by the Steering Group. In December 2002, DOMILL noted the “dearth of information” about the potentially adverse electrophysiological effects of the higher current flow (from the M26) in the body of potentially vulnerable subjects. Further research was analysed by DOMILL and published in July 2004, but this confirmed a potentially greater vulnerability in some groups, leading to the identification of specific risk factors in the current ACPO Guidance.
123. However, DOMILL’s overall conclusion is that the risk of life-threatening or serious injuries from the M26 Taser are “very low” and there is no evidence to date of any serious injury, still less death, caused by Taser during the initial five force operational.¹⁶⁹
124. Since Taser has been more widely available to all police forces in England, Scotland and Wales, evaluation reports have been completed and reviewed by Dstl. The evaluation forms include a synopsis of injuries caused by the use of Taser, including primary, secondary and co-incidental injuries. Dstl considered that the medical issues identified on the evaluation forms were not serious and were principally secondary injuries arising from falls (abrasions, bumps to the head, cut lips etc). One individual had a barb to the penis, another to the scrotum and several to the head. DOMILL has considered these findings and, while it has called for more information in one case, it has not expressed any concerns about the nature and frequency of the reported injuries.

¹⁶⁸ At para.s 47-49.

¹⁶⁹ But the incident in Durham in October 2006, where a man died three days after Taser was used on him (discussed at para. 118 above) is concerning and the results of the full investigation into that case should be monitored and studied by the PSNI and the Policing Board.

125. Against that background, we take the view that although it is generally accepted that Taser use carries a “risk” of death, that risk is low, or even very low, and, as such, Taser use cannot sensibly be treated as the equivalent to the use of lethal equipment such as conventional firearms, which obviously carry a very much higher risk of death.
126. However, the fact that Taser use does carry a risk of death, albeit a low or very low risk, means that Taser cannot simply be treated as non-lethal equipment.
127. We are struck by the fact that the evidence to date about the risks associated with Taser use is far from satisfactory and by the fact that in a high percentage of cases, the use of Taser in England, Scotland and Wales has been against the very groups that have been repeatedly identified as vulnerable. PricewaterhouseCoopers LLP noted that during the operational trial, 33% of Taser subjects were under the influence of drink and 22.5% under the influence of drugs. Our own analysis of the use of Taser since it has been more generally available suggests that 57% of Taser subjects were under the influence of alcohol, 27% under the influence of drugs and that 49% may either have been suffering from mental illness or have had mental health issues. As the ACPO guidance makes clear, the persons most likely to be at greatest risk from any harmful effects of the Taser device are those also suffering from the effects of drugs or who have been struggling violently.¹⁷⁰
128. Since the true risk of death from the use of Taser among these vulnerable groups is unknown, and since most of the research and analysis acknowledges their vulnerability, we consider that Taser should be treated as potentially lethal, rather than non-lethal.
129. We are fortified in this view by the clear evidence that there is a significant risk of ignition if Taser is fired at a target who has flammable liquids such as CS, PAVA, strong alcohol or petrol on him/her. We are also concerned that any other approach would leave out of account the fact that the effects of Taser on children and/or pregnancy have not been fully explored and that the research in these areas is in its infancy. The risk of death from the use of Taser in relation to these groups is, in truth, unknown.
130. Taser should therefore be treated as potentially lethal and that classification affects the test to be applied for its use, an issue to which we now turn.

What is the appropriate legal test for the use of Taser?

131. The fact that Taser should be treated as potentially lethal does not mean that its use can never be compatible with Article 2 of the European Convention on Human Rights (Article 2 ECHR) (the right to life) or the Human Rights Act 1998.

¹⁷⁰ ACPO Operational Use of Taser Operational Guidance (2005), para. 11.9. The Guidance stipulates that if there is any suspicion at all that the violent behaviour of any subject is being caused by excited delirium, they should be treated as a medical emergency and conveyed directly to hospital.

132. The European Court has repeatedly affirmed that the use of lethal force can be compatible with Article 2 ECHR in certain circumstances. It necessarily follows that the use of potentially lethal force can also be compatible with Article 2 ECHR in certain circumstances.
133. Any argument that the use of Taser is absolutely prohibited under the ECHR or the Human Rights Act 1998 is, in our view, wrong. It cannot be said that there are no circumstances in which Taser could legitimately be used.
134. We are fortified in this view by the approach taken by the UN Human Rights Committee and the UN Committee against Torture both of which recognise that Taser can legitimately be used in some circumstances, but that those circumstances should be strictly limited and closely regulated.¹⁷¹
135. We are also fortified in this view by the approach taken by the UN Special Rapporteur on the question of torture to the use of Taser in the context of recommendations about regulating trade in equipment that could be used for torture, inhuman or degrading treatment and the approach taken by the Commission of the European Communities in its draft Council Regulation which deals with the same subject.¹⁷² As noted above, it is clear from these bodies that electronic devices such as Taser are treated as equipment which could be used for torture, inhuman or degrading purposes but which also have legitimate uses, rather than as equipment that has no, or virtually no, practical use other than for torture, inhuman or degrading purposes. This is demonstrated most clearly by the inclusion of devices such as Taser in Annex II (rather than Annex I) to the draft Council Regulation of the Commission of the European Communities.¹⁷³
136. However, the fact that Taser is to be treated as potentially lethal is highly significant. It means that the test for its use must be compatible with Article 2 ECHR.
137. Thus Taser can only lawfully be used where its use is absolutely necessary to defend any person from unlawful violence, to effect an arrest or prevent escape or to quell a riot or insurrection. And, given the limitations on the use of lethal or potentially lethal force to effect an arrest or prevent escape¹⁷⁴ and the obvious limitations in ever using Taser in a riot situation, the reality is that Taser can only lawfully be used where its use is absolutely necessary to protect individuals from unlawful and serious violence.

¹⁷¹ For example, the UN Human Rights Committee Report on the USA, 15th September 2006, para.30 (CCPR/C/USA/CO/3), the UN CAT Report on the USA, 25th July 2006, para.35 (CAT/C/USA/CO/2), the UN CAT Report on the USA, 15th May 2000, para.179(e) (A/55/44) and the UN CAT Report on Switzerland, 21st June 2005, paras.4(b) and 5(b) (CAT/C/CR/34/CHE) .

¹⁷² Economic and Social Council Commission on Human Rights, 59th session, 13th January 2003 (E/CN.4/2003/69) and draft Council Regulation of the Commission of the European Communities, 30th December 2002 (E/CN.4/2003/69).

¹⁷³ Draft Council Regulation of the Commission of the European Communities, 30th December 2002 (E/CN.4/2003/69).

¹⁷⁴ See above at para. 19.

138. Since the test of absolute necessity carries with it a requirement of strict proportionality, the level of violence that would justify the use of Taser is high, i.e. a level of violence that poses a threat to life or of serious injury.
139. We have carefully considered whether the test for the use of Taser ought to be precisely the same as the test for the use of equipment which carries a very high risk of death or serious injury (e.g. conventional firearms such as guns).
140. Having done so, we have ultimately rejected that approach.
141. The *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*, which the European Court has used in interpreting Article 2 ECHR,¹⁷⁵ make it clear that:
- “Law enforcement officers shall not use firearms against persons except in self-defence or the defence of others against the imminent threat of death or serious injury, to prevent the perpetration of a particularly serious crime involving grave threat to life, to arrest a person presenting such a danger and resisting their authority, or to prevent his or her escape, and only when less extreme means are insufficient to achieve those objectives. In any event, the intentional lethal use of firearms may only be made when strictly unavoidable in order to protect life”.¹⁷⁶ [emphasis added]
142. Although, as we have set out above, the use of Taser should be treated as potentially lethal, its use is clearly less extreme than the use of equipment which carries a very high risk of death or serious injury (e.g. conventional firearms such as guns). If, following the *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*, lethal force can only be used where less extreme means are insufficient, by necessary implication, the proper test for the use of Taser is when its use is immediately necessary to prevent or reduce the likelihood of recourse to lethal force.
143. In our view, therefore, the proper test for the use of Taser is that it can be used where its use is immediately necessary to prevent or reduce the likelihood of recourse to lethal force.
144. This is a test that is just below that for the use of lethal force (such as conventional firearms), but a much stricter test than that which applies for other uses of (non-lethal) force. It means that Taser can be used in circumstances where there is a threat to life or a threat of serious injury, but that threat has not quite reached the threshold where lethal force (such as conventional firearms) could be justified.
145. Since lethal force can only be justified where it is absolutely necessary in self-defence or the defence of others against the imminent threat of death or serious injury, to prevent the perpetration of a particularly serious crime involving grave threat to life, to arrest a person presenting such a danger and resisting

¹⁷⁵ *Simsek v Turkey*, [2005] ECHR 35072/97, para.91; *Nachova v Bulgaria* 43577/98 and 43579/98 (6th July 2005), para.72; *Makaratzis v Greece* 50385/99 (20th December 2004).

¹⁷⁶ *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*, para. 9.

their authority, or to prevent his or her escape, the threshold for the use of Taser is still very high.

146. In keeping with the approach of the European Court where lethal force is used, it will be the genuine and honest belief of the officer using Taser that is important. So long as s/he genuinely and honestly believes that the use of Taser is immediately necessary to prevent or reduce the likelihood of recourse to lethal force, Article 2 ECHR will be satisfied, even if that belief subsequently turns out to be mistaken.¹⁷⁷
147. We are fortified in this view by the approach taken by both the European Court in cases such as *Simsek v Turkey*¹⁷⁸ and the *UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials*¹⁷⁹ which heavily emphasises the general requirement that the relevant authorities develop and make available to law enforcement agents, such as the police, equipment that is less likely to cause death than firearms, giving “tear gas, plastic bullets, water cannon etc.” as examples.¹⁸⁰ The underlying premise of that approach is that such equipment should be used to prevent a situation developing to a stage where resort to lethal weapons is necessary.
148. We also note that the test we suggest applies to the use of Taser is broadly in keeping with the approach adopted by the UN Human Rights Committee which considers that Taser should only be used in situations where “greater or lethal force would otherwise have been justified”¹⁸¹ (although we note that the Human Rights Committee has not defined what it means by “greater” force in this context).
149. As noted above, the UN Human Rights Committee has also taken the view that Taser can never be used against vulnerable persons. We accept that such use should obviously be highly exceptional and only when the very high threshold set out above has been met, but since it is the very vulnerability of these groups that dictates that the high threshold for Taser use applies, it seems to us illogical to suggest that in certain limited circumstances conventional firearms such as guns can be used against these groups, but Taser cannot.
150. In any event, as noted above, the reference to “vulnerable persons” by the UN Human Rights Committee, read in the context, refers to Taser use in the USA against “unruly schoolchildren, mentally disabled or intoxicated individuals involved in disturbing but non-life threatening behaviour; elderly people; pregnant women; unarmed suspects fleeing minor crime scenes and people who argue with officers or simply fail to comply with police commands”.¹⁸² Most, if not all, of these examples would not satisfy the high threshold for Taser use that we propose and would not comply with the Human Rights Act 1998.

¹⁷⁷ See above at para. 21.

¹⁷⁸ [2005] ECHR 35072/97.

¹⁷⁹ Para. 23.

¹⁸⁰ *Simsek v Turkey*, para.111.

¹⁸¹ See para.28(b) above.

¹⁸² UN Human Rights Committee Report on the USA, 15th September 2006, para.30 (CCPR/C/USA/CO/3),

151. However, we are concerned that none of the studies carried out by the various expert bodies in the UK have addressed policy issues relating to the use of Taser and, in particular, none have addressed the legal and human rights framework within which Taser can be used. Nor have the IPCC or the HMIC addressed these issues.
152. This is a serious concern. As long ago as 2002, the PSDB recommended that the legal and human rights implications of using Taser should be addressed but to our knowledge, none of the expert bodies have expressly done so.
153. Against that background, we consider that before the PSNI proposal to introduce Taser is progressed, the Policing Board should satisfy itself that the PSNI has properly addressed the legal and human rights framework within which Taser can be used and, in particular, that it has devised clear and robust policy, guidance and training to ensure that any use of Taser in Northern Ireland fully complies with the requirements of the European Convention on Human Rights and the Human Rights Act 1998.
154. We also note that in the letter sent to consultees as part of the equality screening process, the PSNI gave “a person threatening self-harm” as an example of an incident where Taser might be used.¹⁸³ Where an individual threatening self-harm presents a threat to the life of, or of serious injury to, others, the test that we have set out for the use of Taser would obviously apply. But if the PSNI intends any wider use, we consider that it should carefully consider the circumstances (if any) in which such use might arise and set out how such use would be compatible with the ECHR.

What are the training, planning and control implications of using Taser?

155. As noted above, the European Court has placed a very heavy emphasis on the requirements of training, planning and control whenever lethal or potentially lethal force may be used. Since Taser is to be treated as potentially lethal, these requirements apply to the use or potential use of Taser.
156. Police officers authorised to use Taser should be provided with effective training “with the objective of complying with international standards for human rights and policing” including the ECHR and the Human Rights Act.¹⁸⁴ They should also receive clear and precise instructions as to the manner and circumstances in which they should make use of Taser.¹⁸⁵
157. In other words, and as already noted, before Taser is introduced for use by the PSNI, clear and robust policy, guidance and training should be in place to ensure that any use of Taser by the police in Northern Ireland fully complies with the requirements of the European Convention on Human Rights and the Human Rights Act 1998.

¹⁸³ See para.4 above.

¹⁸⁴ Ibid, para.109.

¹⁸⁵ See above at para. 22.

158. As for planning and control, the obligation is clear. The relevant authorities should plan and control operations in which Taser might be used so as to minimise, to the greatest extent possible, recourse to its use.¹⁸⁶

Has the PSNI made out a case for the introduction of Taser?

159. The question of whether or not the PSNI has made out a case for the introduction of Taser goes hand in hand with the test for the use of Taser that we have addressed above. A case for the introduction of Taser requires the PSNI to show that there have been or may well be situations in Northern Ireland in which Taser could lawfully be used where its use would be immediately necessary to prevent or reduce the likelihood of recourse to lethal force.
160. Although the letter sent by the PSNI to consultees on 25th September 2006 refers to a ‘capability gap’ that has been identified regarding its response to certain types of incidents¹⁸⁷ and gives some hypothetical examples (some of which would clearly satisfy the Article 2 ECHR test), we are not convinced that this aspect of the PSNI proposal to introduce Taser is robust enough to withstand careful scrutiny.
161. In our view, a ‘capability gap’ can only properly be identified once the proper legal test for the use of Taser has been set out and agreed. But that is not the approach that the PSNI has adopted to date.
162. That is not to say that no case for the introduction of Taser in Northern Ireland can be made out. It is simply to say that clear evidence of a capability gap should be provided before potentially lethal equipment is made available to any law enforcement agency, not least because it is important to be clear that the permitted use of equipment such as Taser will fill the identified gap.
163. We have studied the Regulation 20 Reports prepared by the Police Ombudsman for Northern Ireland dealing with every discharge of firearms by the PSNI between March 2001 and June 2004. We doubt whether the use of Taser would have been appropriate in most of these incidents, many of which concerned the use of conventional firearms to stop vehicles that were being used for serious offences such as armed robbery or that were being used to threaten the life or limb of police officers.
164. But we are mindful of the fact that in many instances where the threshold for using lethal force may have been reached, police officers may have chosen not to resort to the use of firearms, perhaps in some circumstances at great risk to themselves.
165. Against that background, we recommend that the Policing Board should require the PSNI to provide clearer evidence of a capability gap requiring the introduction of Taser before its proposal is progressed. That evidence should take account of the test for the use of Taser that we have set out above.

¹⁸⁶ See above at para.s 23 to 24.

¹⁸⁷ See above at para. 4.

166. In our view, it is not necessary for the PSNI to provide a definitive list of past cases in which Taser could lawfully have been used to prevent or reduce the likelihood of recourse to lethal force. That is an impossible task because of its hypothetical nature. However, we consider that it should be possible for the PSNI to identify the types of cases that actually occur in Northern Ireland where Taser might lawfully be used to prevent or reduce the likelihood of recourse to lethal force and to provide some concrete examples.

Does the current ACPO Policy and Guidance comply with the requirements of the Human Rights Act 1998?

167. This is important because the PSNI proposal to introduce Taser, as set out in the consultation letter of 25th September 2006 indicates that:

“The intention would be for PSNI to reflect the practice in England and Wales where TASER is only used by Authorised Firearms Officers as a less lethal alternative, for use in situations where a firearms authority has been granted”.

168. As summarised above, the current ACPO Policy instructs officers that Taser will only be deployed in circumstances where firearms officers are authorised to carry firearms and will only be deployed alongside conventional firearms. It is important therefore to analyse the circumstances in which firearms officers are authorised to carry firearms, which are set out in the ACPO Manual of Guidance on Police Use of Firearms (ACPO Firearms Manual).

169. The ACPO Firearms Manual provides that firearms are to be issued to Authorised Firearms Officers (AFO) (following authorisation by the appropriate authorising officer):

(a) where the authorising officer has reason to suppose that AFOs, in the course of their duty, may have to protect themselves or others from a person who: (i) is in possession of a firearm; or (ii) has immediate access to a firearm; or (iii) is otherwise so dangerous that the officer’s use of a firearm may be necessary;

(b) for the humane destruction of animals which are dangerous or are suffering unnecessarily.

170. The ACPO Firearms Manual makes a clear distinction between the issue and the use of firearms:

“ ... the level of knowledge required as to the existence of a threat justifying the issue of firearms [is set] at a far lower level of probability than that which would actually justify their use... There can be no justification, therefore, for making use of a weapon based solely on the fact that firearms have been issued. In effect the authority for issue merely authorises the carrying of the weapon”¹⁸⁸ (emphasis added).

¹⁸⁸ ACPO Manual, chapter 3, para. 2.3.

171. The ACPO Firearms Manual states that firearms may be fired by AFOs in the course of their duty “only when absolutely necessary after traditional methods have been tried and failed or must, from the nature of the circumstances, be unlikely to succeed if tried.”¹⁸⁹ The ACPO Firearms Manual expressly provides that the test of using “force which is no more than absolutely necessary” as set out in Article 2(2) ECHR should be applied in relation to the operational discharge of any weapon.¹⁹⁰

172. When it is considered necessary to open fire, police officers are instructed:

“... to shoot to stop an imminent threat to life. The imminence of any threat should be judged, in respect to the potential for loss of life, with due regard for legislation and consideration of necessity, reasonableness and proportionality”.¹⁹¹

This is a strict test and, as is well known, the number of cases in which authority is given for firearms to be carried vastly outnumbers the number of cases in which firearms are actually used.¹⁹² As the Police Complaints Authority (PCA) has noted:

“In each of the relevant years [1998-2001], around every thousandth incident which involved the deployment of firearms to police officers in England and Wales resulted in a weapon being discharged”.¹⁹³

173. In January 2003, the PCA published a review of shootings by police in England and Wales from January 1998 to November 2001.¹⁹⁴ In that period, firearms were discharged 55 times. These shootings occurred in 24 separate incidents and 32 individuals¹⁹⁵ were shot, 11 fatally.¹⁹⁶ Very crudely, that equates to about 18 discharges of firearms each year.

174. The PCA Review only covers a three year period, pre-dates the use of Taser in England and Wales and does not cover Scotland. Thus no direct comparison can be made. But it is immediately clear that Taser has been discharged since its introduction in 2003 (on a limited basis) and 2004 (more generally) on many more occasions than firearms were used in the period 1998-2001. For example, as noted above,¹⁹⁷ Taser was discharged 69 times by police in England, Scotland and Wales in 2005 and 45 times between January and May 2006. This tends to suggest that Taser is being used in circumstances where

¹⁸⁹ ACPO Manual, chapter 5, para. 2.1.

¹⁹⁰ ACPO Manual, chapter 5, para. 2.4.

¹⁹¹ ACPO Manual, chapter 5, para. 6.1.

¹⁹² In the PCA, *Review of Shootings by Police in England and Wales 1998-2001*, it is recorded that ratio of shots fired as a proportion of firearms operations was 0.03% for 1997-98, 0.11% of 1998-99, 0.09% for 1999-2000 and 0.16% for 2000-2001.

¹⁹³ PCA, *Review of Shootings by Police in England and Wales 1998-2001*, January 2003, p.21 (PCA Review).

¹⁹⁴ Ibid.

¹⁹⁵ In one incident, six of the shots were aimed at and hit a dog, with one shot ricocheting off and hitting a bystander.

¹⁹⁶ PCA Review, p.8.

¹⁹⁷ At para. 110.

conventional firearms would not (or at least not necessarily) have been discharged.

175. That is certainly borne out by PriceWaterhouseCoopers LLP's evaluation of the five force operational trial of Taser, which, as noted above,¹⁹⁸ concluded that "the evidence suggests that Taser has been effective in preventing incidents from escalating to the point where lethal force is required".¹⁹⁹ [emphasis added]
176. Our examination of the report summaries of Taser use in England, Scotland and Wales sent to ACPO supports this view. In our opinion, it is unlikely that the discharge of conventional firearms would have been justified in the vast majority of cases in which Taser was used.
177. That is not, of itself, surprising. If the use of Taser is lawful where its use is immediately necessary to prevent or reduce the likelihood of recourse to lethal force, one would expect Taser to be used more often than lethal force. However, it does bring into sharp focus the guidance provided in the ACPO Policy and Guidance.
178. As noted above, the current ACPO Policy on the use of Taser does not provide clear guidance as to the precise circumstances in which Taser can be used rather than deployed.
179. The preface to the current ACPO Guidance indicates that:

"The issue, deployment and use of taser will conform to the well-established guidance already laid down in the ACPO Manual of Guidance on Police Use of Firearms".²⁰⁰

The guidance on the use of firearms in the ACPO Firearms Manual restricts their use to circumstances where the use is "absolutely necessary after traditional methods have been tried and failed or must, from the nature of the circumstances, be unlikely to succeed if tried"²⁰¹ and then police officers are only permitted to "shoot to stop an imminent threat to life".

180. But the current ACPO Guidance on the use of Taser differs. Having set out in the preface that use of Taser will conform to the well-established guidance already laid down in the ACPO Firearms Manual, it goes on to set out a number of specific risk factors indicating that account must be taken of them when assessing the "appropriateness and necessity of using taser" bearing in mind that "there are circumstances where the only alternative may be the use of a potentially lethal firearm ... or where activation of taser irrespective of the additional risk is absolutely necessary to protect life"²⁰² (i.e. in circumstances where the use of lethal force is permitted under Article 2 ECHR). This tends to

¹⁹⁸ See above at para. 75.

¹⁹⁹ PricewaterhouseCoopers LLP, Final report, May 2004, para. 42.

²⁰⁰ ACPO Guidance, para. 1.10.

²⁰¹ ACPO Firearms Manual, chapter 5, para. 2.1.

²⁰² ACPO Guidance, para. 7.5.

suggest that, under current ACPO Guidance, Taser can be used in wider circumstances than conventional firearms could be used under Article 2 ECHR but that Article 2 ECHR may be relevant when the specific risk factors are present.

181. The current ACPO Guidance then indicates that the use of Taser is one of a number of tactical options available to an officer who is faced with violence or the threat of violence²⁰³ and that the duration of any discharge of Taser must be “proportionate, lawful, appropriate, necessary and non-discriminate”.²⁰⁴ This also tends to suggest that Taser can be used in wider circumstances than conventional firearms could be used under Article 2. Similar wording is used in the ACPO Guidance on the use of Attenuating Energy Projectiles (AEPs) (impact rounds).²⁰⁵
182. It may well be that the test set out in the current ACPO Guidance on the use of Taser will satisfy the test we identify above – i.e. where its use is immediately necessary to prevent or reduce the likelihood of recourse to lethal force – but, in our view, it is not clear enough and may accommodate cases which would not satisfy this test. It therefore may not satisfy the requirement under Article 2 ECHR that law enforcement officers, including the police, should receive clear and precise instructions as to the manner and circumstances in which they should make use of Taser.²⁰⁶ However, we wish to emphasise that we have not observed any training given under the ACPO Guidance and it may well be that such training clarifies matters.
183. Nonetheless, in the circumstances we consider that if Taser is introduced by the PSNI, either the ACPO Policy and Guidance should be amended or specific policy and guidance should be drawn up independently by the PSNI that precisely reflects the test for use that we identify above and gives clear guidance as to the manner and circumstances in which Taser can be used as required by Article 2 ECHR.
184. It may be that this is the intention of the PSNI in any event. In addition to the reference to reflecting the practice in England and Wales identified above, in its consultation letter of 25th September 2006, the PSNI also indicates that:

“The standard for TASER would be analogous to that for firearms, with the officer having an honest belief of absolute necessity to save life or prevent serious injury”

That, of course, reflects the circumstances in which the use of lethal force would be permitted under Article 2 ECHR.²⁰⁷

²⁰³ ACPO Guidance, para. 9.1.

²⁰⁴ ACPO Guidance, para. 9.2.

²⁰⁵ ACPO Attenuating Energy Projectile Guidance, para.s 9.1-9.5.

²⁰⁶ See above at para. 22.

²⁰⁷ That would be consistent with the approach it has adopted to the use of AEP impact rounds. The current ACPO Guidance on the use of AEP impact rounds is in similar terms to the current ACPO Guidance on the use of Taser but the current PSNI Policy on AEP impact rounds restricts their use to circumstances where the use of lethal force would be permitted under Article 2 ECHR.

185. Alternatively it may be that the references to the Article 2 ECHR test for the use of Taser in the letter of 25th September 2006 are only intended to indicate circumstances in which Taser might be used, but not to limit its use to those circumstances. Either way, it is clear that the PSNI proposal for the introduction of Taser requires clarification.

L. CONCLUSIONS

186. The PSNI proposal to introduce Taser does have human rights implications.
187. It follows that the Policing Board has a duty to consider those human rights implications, not least because of its statutory duty to monitor the performance of the PSNI in complying with the Human Rights Act 1998.²⁰⁸
188. There have been a number of sudden deaths reported after the use of Taser. How far the evidence has established a causal link between death and the use of Taser, either as a sole direct cause or as a contributory cause, is disputed. But what is clear is that some groups are more vulnerable to the use of Taser than others (e.g. those suffering from mental illness, those using drugs and/or those in a state of excited delirium) and all the evidence available to date from England, Wales and Scotland suggests that in a high percentage of cases, Taser has been used against these very groups.
189. The full effects of Taser on other groups such as children and pregnant women are not known.
190. On the other hand, DOMILL's overall conclusion is that the risk of life-threatening or serious injuries from the M26 Taser are "very low." Since Taser has been more widely available in England, Scotland and Wales, there has been only one case in which concern has been raised about a possible link between Taser and death.²⁰⁹ There has been no other evidence to date of serious injury caused by Taser.
191. Accordingly, Taser should be treated as potentially lethal equipment, rather than lethal or non-lethal.
192. The fact that Taser should be treated as potentially lethal does not mean that its use can never be compatible with Article 2 of the European Convention on Human Rights (Article 2 ECHR) (the right to life) or the Human Rights Act 1998.
193. The proper test under Article 2 ECHR and the Human Rights Act 1998 for the use of Taser is that its use will be lawful where it is immediately necessary to prevent or reduce the likelihood of recourse to lethal force (e.g. conventional firearms).
194. This is a test that is just below that for the use of lethal force (such as conventional firearms), but a much stricter test than that which applies for

²⁰⁸ Under s.3(3)(b)(ii) Police (Northern Ireland) Act 2000.

²⁰⁹ The incident in Durham in October 2006 discussed at para. 118 above.

other uses of (non-lethal) force. It means that Taser can be used in circumstances where there is a threat to life or a threat of serious injury, but that threat has not quite reached the threshold where lethal force (such as conventional firearms) could be justified.

195. We are concerned that none of the official bodies charged with considering the use of Taser have publicly addressed the legal and human rights framework within which Taser can or should be used.
196. We are also concerned that the current ACPO Policy and Guidance on the use of Taser may not be sufficiently clear and may accommodate cases which would not satisfy the test for use of Taser that we have set out above. Consequently, they may not meet the requirement under Article 2 ECHR that law enforcement officers, including the police, should receive clear and precise instructions as to the manner and circumstances in which they should make use of Taser.²¹⁰
197. In our view, before the PSNI proposal to introduce Taser is progressed, the Policing Board should satisfy itself that the PSNI has properly addressed the legal and human rights framework within which Taser can be used and, in particular, that it has devised clear and robust policy, guidance and training to ensure that any use of Taser in Northern Ireland fully complies with the requirements of the European Convention on Human Rights and the Human Rights Act 1998.
198. In addition, if Taser is introduced in Northern Ireland, the relevant authorities must ensure that all operations in which Taser might be used are planned and controlled so as to minimise, to the greatest extent possible, recourse to its use.²¹¹
199. A case for the introduction of Taser requires the PSNI to show that there have been or may well be situations in Northern Ireland in which the use of Taser would be immediately necessary to prevent or reduce the likelihood of recourse to lethal force.
200. As currently presented, we are not satisfied that the PSNI proposal to introduce Taser meets that requirement.
201. Although the letter sent by the PSNI to consultees on 25th September 2006 refers to a ‘capability gap’ that has been identified regarding its response to certain types of incidents²¹² and gives some hypothetical examples (some of which would clearly satisfy the Article 2 ECHR test), we are not convinced that this aspect of the PSNI proposal to introduce Taser is robust enough to withstand careful scrutiny. In our view, a ‘capability gap’ can only properly be identified once the proper legal test for the use of Taser has been set out and agreed. But that is not the approach that the PSNI has adopted to date.

²¹⁰ See above at para.s 167 ff.

²¹¹ See above at para.s 23 to 24.

²¹² See above at para. 4.

202. We recommend that the Policing Board should require the PSNI to provide clearer evidence of a capability gap requiring the introduction of Taser before its proposal is progressed. That evidence should take account of the test for the use of Taser that we have set out above.
203. That is not to say that a case for the introduction of Taser in Northern Ireland cannot be made out. It is simply to say that clear evidence of a capability gap should be provided before potentially lethal equipment is made available to any law enforcement agency.

KEIR STARMER QC

JANE GORDON

23rd May 2007

APPENDIX 1

BIBLIOGRAPHY OF DOCUMENTS RELATING TO TASER

Scientific and medical research (worldwide)

1. A. Bleetman, R. Steyn and C. Lee, *Introduction of the Taser into British policing. Implications for UK emergency departments: an overview of electronic weaponry*, Emergency Department, 2004.
2. A. Bleetman, R. Steyn, *The Advanced Taser: a Medical Review*, April 2003.
3. Barnes DG Jr., et al, *Cardiac effects of the Taser conducted energy weapon*, Annals of Emergency Medicine, Vol. 48, No. 4, October 2006.
4. Bozeman MD, *Medical Aspects of Less Lethal Weapons*, US Department of Emergency Medicine.
5. Braunwald's, *Heart Disease Troponin Background: Serum Markers of Cardiac Damage*.
6. Chen, Richard, Murthy, Lauer, *Perforating ocular injury by Taser*, May 2006.
7. College of American Pathologists, *Troponin Triple Crown: Diagnosis, Risk, RX*, July 2001.
8. Darren Laur, Victoria Police Department, *Excited Delirium and its correlation to sudden and unexpected death proximal to restraint: A review of the current and relevant medical literature*, April 2005.
9. Dhanunjaya Lakkireddy MD, et al, *Cardiac vulnerability to ventricular fibrillation during electrical stun gun (Taser-X26) application: effect of cocaine intoxication*, Heart Rhythm, Vol. 3, Issue 5, Supplement 1, May 2006.
10. Dhanunjaya Lakkireddy MD, et al, *Cardiovascular safety profile of electrical stun guns (Taser): Impact of point of delivery on ventricular fibrillation thresholds*, Heart Rhythm, Vol. 3, Issue 5, Supplement 1, May 2006, p.S249.
11. Dhanunjaya Lakkireddy MD, *Effects of Cocaine Intoxication on the Threshold for Stun Gun Induction of Ventricular Fibrillation*.
12. DSAC Sub-Committee on the Medical Implications of Less-Lethal Weapons (DOMILL), *Second statement on the medical implications of the use of the M26 Advanced Taser*, July 2004.
13. DOMILL, *Statement on the comparative medical implications of use of the X26 Taser and the M26 Advanced Taser*, 7th March 2005.

14. Defence Science and Technology Laboratory (Dstl), *An update on the review of the medical implications of use of electrical incapacitation devices*, DSTL/PUB20750, September 2002.
15. Dstl, *Assessment of the effects of Advanced Taser M26 output on active implantable medical devices*, DSTL/PUB20750, September 2002.
16. Dstl, *Effects of simulated M26 and X26 Taser waveforms on the guinea-pig isolated heart*, DSTL/PUB20754, March 2005.
17. Dstl, *Medical implications of the use of the M26 Taser – the effects of drugs abuse on the cardiac action potential in sheep isolated Purkinje fibres*, DSTL/PUB20751, January 2004.
18. Dstl, *Modelling current flow in the human body from the M26 and X26 Taser devices*, DSTL/PUB20755, October 2005.
19. Dstl, *The medical implications of the use of electrical incapacitation devices (Tasers)*, DSTL1/PUB20749, April 2002.
20. Dstl, *The X26 Taser – a review of the experimental and operational data related to an assessment of the medical implications of use*, DSTL/PUB20752, January 2005.
21. Emma Jenkinson, et al, *The relative risk of police use of force options: Evaluating the potential for deployment of electronic weaponry*, Journal of Clinical Forensic Medicine, Vol. 13, Issue 5, July 2006, pp.229-241.
22. Home Office Scientific Development Branch, *Supplement to HOSDB Evaluations of Taser Devices, A collection of medical evidence and other source material*, Publication No. 64/06, November 2006.
23. J. Ruggieri, *Lethality of Taser weapons*, July 2005.
24. James R Jauchem, et al, Air Force Research Laboratory, *Acidosis, lactate, electrolytes, muscle enzymes, and other factors in the blood of sus scrofa following repeated Taser exposures*, 14th November 2005.
25. Jared Strote MD, *The role of Tasers in police restraint-related death*, University of Washington School of Medicine and Harvard Medical School.
26. Jeff Ho, *Absence of electrocardiographic effects following Taser device application in human volunteers*, Department of Emergency Medicine, University of Minnesota Emergency Medicine Programme.
27. Jeff Ho, Assistant Professor of Emergency Medicine at University of Minnesota, Letter dated 10th February 2005.
28. Jeff Ho, *Beneficial impact of conducted electrical weapons in the mentally ill population*, Department of Emergency Medicine, University of Minnesota Emergency Medicine Programme.

29. Jeff Ho, Robert F Reardon, William G. Heegaard, *Cardiovascular and physiologic effects of conducted electrical weapon discharge in resting adults*, Academic Emergency Medicine, 2006.
30. Jeff Ho, et al, *Deaths in American police custody: A 12 month surveillance study*, University of Minnesota Emergency Medicine Programme.
31. John Kenny, et al, Penn State Applied Research Laboratory, *Sticky Shocker Assessment*, 29th July 1999.
32. John McManus, *A retrospective case series describing the injury pattern of the Advanced Taser M26 in Multnomah County Oregon*, Society of Academic Emergency Medicine (Abstract).
33. Journal of the National Academy of Forensic Engineers (US), Vol. XXII, No. 2 December 2005.
34. Koscove, *The Taser weapon: a new emergency medicine problem*, Annual Emergency Medicine, December 1985 (Abstract).
35. Koscove, *Taser dart ingestion*, Journal of Emergency Medicine, November 1987 (Abstract).
36. K. Nanthakumar MD, et al, *Cardiac electrophysiological consequences of neuromuscular incapacitating device discharges*, University of Toronto, Journal of the American College of Cardiology, Vol. 48, No. 4, February 2006, pp.798-804.
37. L.E. Mehl, *Electrical injury from Taser and miscarriage*, Acta. Obstet. Gynecol. Scand., February 1992 (Abstract).
38. Laurent M Haegeli, et al, *Effect of a Taser shot to the chest of a patient with an implantable defibrillator*, Heart Rhythm, Vol. 3, Issue 3, March 2006, pp.339-341.
39. Letter to the New England Journal of Medicine regarding a Taser fatality.
40. McBride, *Efficacy and safety of electrical stun devices*, Potomac Institute for Policy Studies (US), March 2005.
41. Nick Lewer and Neil Davidson, *Electrical stun weapons: alternative to lethal force or a compliance tool?*, Bradford Non-Lethal Weapons Research Project, January 2006.
42. Nick Lewer and Neil Davidson, *Research Report No.7*, Bradford Non-Lethal Weapons Research Project, May 2005.
43. Nick Lewer and Neil Davidson, *Research Report No.8*, Bradford Non-Lethal Weapons Research Project, March 2006.
44. Office of the Police Complaint Commissioner, British Columbia, *Taser technology review and interim recommendations*, September 2004.

45. Office of the Police Complaint Commissioner, British Columbia, *Taser technology review final report*, June 2005.
46. Ordog, *Electronic gun (TASER) injuries*, January 1987 (Abstract).
47. Police Scientific Development Branch, *Evaluation of Taser Devices*, Publication No. 9/02.
48. Police Scientific Development Branch, *Further Evaluation of Taser Devices*, Publication No. 19/05.
49. R. N. Kornblum and S. K. Reddy, *Effects of Taser in fatalities involving police confrontation*, *Journal of Forensic Sciences*, Vol. 36, 1991, pp.434-448.
50. Raymond Fish, Leslie Geddes, *Effects of stun guns and tasers*, *The Lancet*, Vol 358, 1st September 2001.
51. Robinson, et al, *Electric shock devices and their effects on the human body*, *Medical Science Law*, October 1990.
52. Saul Levine MD, et al, *Cardiac Monitoring of Subjects Exposed to the TASER*, *University of California San Diego Emergency Medicine*, May 2005.
53. Sir Scott Savage, *After the zap: Taser injuries and how to treat them*, Summer 2005.
54. Srikanth Sadhu MD, et al, *Ventricular fibrillation and death after Taser injury*, *Heart Rhythm*, Vol. 3, No. 5, May Supplement 2006.
55. Stratbucker study, *Evaluation of the electric shock hazard from the Nova XR-5000 Stun Gun*, *University of Nebraska Medical Center-Omaha*, 15th January 1985.
56. T.B. Allen, *Discussion of 'Effects of the Taser in fatalities involving police confrontation'*, *Journal of Forensic Science*, Vol. 37, pp.956-958.
57. The Joint Non-Lethal Weapons Human Effects Center of Excellence, *Human Effectiveness and Risk Characterization of the Electromuscular Incapacitation Device – A Limited Analysis of the TASER*, Part 1 Technical Report, 1st March 2005.
58. The Joint Non-Lethal Weapons Human Effects Center of Excellence, *Human Effectiveness and Risk Characterization of the Electromuscular Incapacitation Device – A Limited Analysis of the TASER*, Part II Appendices, March 2005.
59. The Stanford Criminal Justice Centre, *Use of Tasers by law enforcement agencies: guidelines and recommendations*.
60. Tisdale et al, *Electrophysiologic and electrocardiographic pharmacodynamics of cocaine*, *College of Pharmacy and Allied Health Professions*, May 1996 (Abstract).

61. Tisdale, et al, *The effect of cocaine on ventricular fibrillation threshold in the normal canine heart*, College of Pharmacy and Allied Health Professions, May 1996 (Abstract).
62. W. Ng and M. Chehade, *Taser penetrating ocular injury*, American Journal of Ophthalmology, April 2005.
63. W.C. Mc Daniel et al, *Cardiac safety of neuromuscular incapacitating defensive devices*, Pacing and clinical electrophysiology, Vol. 28, No. 1, January 2005.
64. Webster, et al, *Can Tasers directly cause ventricular fibrillation?* University of Wisconsin.

Police research and policy documentation (worldwide)

65. ACPO, *Executive summary from Taser trial interim report*.
66. ACPO, *Operational Use of Taser Operational Guidance*, 2005.
67. ACPO, *Independent Evaluation of the Operational Trial of TASER*, Final Report, May 2004.
68. ACPO, *Information leaflet for persons upon whom the Taser has been used*.
69. ACPO *Manual on the Police Use of Firearms*, January 2003.
70. ACPO Operational trial of Taser, *Taser Training Module: Firearms Officer*, 8th August 2004.
71. ACPO Operational trial of Taser, *Policy Document*.
72. ACPO, *Operational Use of Taser Policy*, 2005.
73. ACPO, *Taser Deployment Report*, 2003.
74. ACPO *Taser Evaluation Form*, April 2006.
75. ACPO *Taser Generic Risk Assessment*.
76. ACPO Taser Practitioners Group, *Taser Implementation Package*.
77. ACPO Working Group on Police Use of Firearms, *Availability of X26 Taser*, 23rd March 2005.
78. ACPO Working Group on Police Use of Firearms, *Revised Taser Operational Guidance and Taser Policy Documents*, 16th November 2005.
79. Ad Hoc Committee on Electronic Control Weapons, Adopted by the Georgia Association of Chiefs of Police Executive Board, *Electronic control weapons review and recommendations*, 20th June 2005.

80. Brian Bruce, Defensive Tactics Unit, Division of Police - Intra-Division, *Memo on six month Taser study*, July 2005.
81. Canadian Police Research Centre, *Technical Report Review of Conducted Energy Devices TR-01-2006*, 22nd August 2005.
82. Canadian Police Research Centre, *Taser Technology Research Paper TR-01-2000*, September 2000.
83. Cape Coral, Florida Police Department, *M-26 Air Taser Program Evaluation*, 22nd September 2004.
84. Chandler, Arizona Police Department, *Advanced Taser use of force 2003 Annual Report April 1 – December 31*, 3rd February 2004.
85. Council of Europe, *Declaration on the Police*, Resolution 690.
86. Department of the Army Memo (US), 7th February 2005.
87. Driscoll, Wayne County Airport Police Department: Eastern Michigan University, *Kinetic Impact Munitions and Taser guns: Two Less Lethal Weapons Options for the Wayne County Airport Police Department*, 19th September 2003.
88. Her Majesty's Inspectorate of Constabulary, *Baseline Assessment Police Service of Northern Ireland*, 2nd April 2007.
89. Her Majesty's Inspectorate of Constabulary, *Review of PSNI Compliance and Its Statement of Intent on the Police Use of Firearms and Less Lethal Weapons*, 9th December 2005.
90. International Association of Chiefs of Police, *Electro-muscular disruption technology: Nine step strategy for effective deployment*.
91. International Association of Chiefs of Police, *Electronic control weapons*, January 2005.
92. Independent Police Complaints Commission (UK), *Statement on Tasers*, 30th November 2004.
93. Intertek ETL Semko Test Report for Victoria Police Department.
94. Joint Committee on Human Rights, Inquiry into Counter-Terrorism Policy and Human Rights, *Evidence submitted by the Independent Police Complaints Commission*, March 2006.
95. Kent Police, *Operational use of Taser*, May 2006.
96. Lancashire Constabulary, *Taser Policy*, 2005.
97. Madison Wisconsin Police Department, *Taser Report*, 2005.

98. Michael Brave (US), *Electronic control device legal outline, Basic law enforcement use of force concepts*, 25th July 2006.
99. Michigan Municipal Risk Management Authority, *Less Lethal Weapons: Model Policy and Procedure for Public Safety Officers*, Summer 2005.
100. Northern Ireland Office e-mail to Policing Board, *Use of TASER in England and Wales*, October 2006.
101. PSNI General Order 34/2001, *Human Rights and the Police Use of Force*.
102. PricewaterhouseCoopers LLP, *Evaluation of Taser – Digest of Public Opinion Survey*, May 2004.
103. PricewaterhouseCoopers LLP, *Final report*, May 2004.
104. Police Complaints Authority, *Review of shootings by Police in England and Wales 1998-2001*, 30th January 2003.
105. Police Executive Research Forum (PERF), Center on Force and Accountability, *PERF Conducted Energy Device: Policy and Training Guidelines for Consideration*, 25th October 2005.
106. Police Magazine, *Navigating the learning curve: How Tasers are used by Cincinnati PD*.
107. www.PoliceOne.com (US) on Force Science News reports, *Should cops stop using Tasers? and Naked suspects: No laughing matter*.
108. *Report of the Independent Commission for Northern Ireland. A New Beginning: Policing in Northern Ireland*, September 1999.
109. Rick Parent, The Police Journal, *The Police use of deadly force: International comparisons*.
110. Seattle Police Department, *Taser use update*, July 2006.
111. Seattle Police Department, *The M26 Taser Year One Implementation*, May 2002.
112. South Yorkshire Police, *Use of Less Lethal Technologies – Taser*, 2005.
113. Steven Whitehead (US), *After shock, A rational response to Taser strikes*.
114. United States Government Accountability Office, *Taser weapons: Use of Tasers by selected law enforcement agencies*, 2005.
115. West-midlands Police, *Taser – Operational use involving authorised firearms officers*, 2005.
116. William J Everett, *Police use of conductive energy devices, League of Minnesota Cities promoting excellence*, October 2005.

Articles (worldwide)

117. ACLU, *Stun Gun Fallacy*, September 2005.
118. ACLU, *Less lethal force, Proposed standards for Massachusetts Law Enforcement Agencies*.
119. Amnesty International, *Excessive and lethal force? Amnesty International's concerns about deaths and ill-treatment involving police use of Tasers*, 2004, <http://web.amnesty.org/library/index/engamr511392004>.
120. Amnesty International, *The Pain Merchants: Security equipment and its use in torture and other ill treatment*.
121. Amnesty International, *Report of seminar*, Belfast, 25th September 2005.
122. Amnesty International, *USA Amnesty International's continuing concerns about Taser use*, March 2006.
123. British Irish Rights Watch, *Response to the Fifth Report on a research programme into alternative policing approaches towards the management of conflict*, December 2006.
124. Butski, Eastern Michigan University, *Risks and benefits of Tasers*, 16th August 2004.
125. Butz, *Taser use by Nebraska Law Enforcement Agencies: The case for policy reform*, ACLU Nebraska, 2006.
126. Children's Law Centre and Save the Children, *Response to the Police Service of Northern Ireland's consultation on the proposed introduction of Taser to the Police Service of Northern Ireland*, November 2006.
127. Committee on the Administration of Justice, *Response to the PSNI's consultation on proposed introduction of Taser*, 20th October 2006.
128. Jaycor report on International Electrotechnical Commission Analysis, November 2004.
129. Miami-Dade County Grand Jury, *Mental illness and the Criminal Justice System: A recipe for disaster/A prescription for improvement*, 11th January 2005.
130. Northern Ireland Human Rights Commission, *Response to PSNI consultation on proposed introduction of Taser to the Police Service of Northern Ireland*, 21st November 2006.
131. TASER International, *Advanced TASER M26 Field Report Analysis*, November 2002 (Available from www.taser.com).
132. TASER International/Amnesty International Debate, 9th March 2005.

133. TASER International, *Deadly Rhetoric: How the ACLU of California's fight against law enforcement control tools endangers communities*, 20th January 2006.
134. TASER International disputes electrical calculations report.
135. TASER International, *Product Warnings – Law Enforcement*, 28th August 2006.
136. TASER International, *Taser Non-Lethal Systems: Reducing Injuries and Saving Lives*, pp.1-15 (Available from www.taser.com).
137. TASER International, *TASER International clarifies TASER X26C Citizen Education and Product Information*, Press Release, Background information and Presentation, July 2005.
138. First, Second, Third, Fourth and Fifth Report by the UK Steering Group, *Patten Report Recommendations 69 and 70 relating to public order equipment: A Research Programme into Alternative Policing Approaches Towards the Management of Conflict*, 2001-2006.

United Nations documents

139. United Nations Basic Principles on the Use of Force and Firearms by Law Enforcement Officials 1990.
140. United Nations Code of Conduct for Law Enforcement Officials, adopted by General Assembly resolution 34/169, 17th December 1979.
141. United Nations, Committee Against Torture, *List of issues to be taken up in connection with the consideration of the fourth periodic report of Switzerland*, 11th February 2005.
142. United Nations, *Consideration of reports submitted by States Parties under Article 19 of the Convention, Conclusions and recommendations of the Committee against Torture*, Switzerland, 21st June 2005.
143. United Nations, *Consideration of reports submitted by States Parties under Article 19 of the Convention, Conclusions and recommendations of the Committee Against Torture*, United States of America, 25th July 2006.
144. United Nations, *Consideration of reports submitted by States Parties under Article 40 of the Covenant, Concluding observations of the Human Rights Committee*, United States of America, 15th September 2006.
145. United Nations, *Consideration of reports submitted by States Parties under Article 19 of the Convention, Conclusions and recommendations of the Committee Against Torture*, United States of America, 15th May 2000.
146. United Nations, Economic and Social Council, *Report of the Special Rapporteur on the question of torture*, Theo van Boven, E/CN.4/2005/62, 15th December 2004.

147. United Nations, Economic and Social Council, *Study on the situation of trade in and production of equipment which is specifically designed to inflict torture or other cruel, inhuman or degrading treatment, its origin, destination and forms*, Theo van Boven, Special Rapporteur on torture, pursuant to resolution 2002/38 of the Commission on Human Rights, 13th January 2003.
148. United Nations, Human Rights Committee, *Consideration of reports submitted by States Parties under Article 40 of the Covenant, Fifth periodic report, Canada*, 18th November 2004.
149. United Nations, Human Rights Committee, *Consideration of reports submitted by States Parties under Article 40 of the Covenant, List of issues to be taken up in connection with the consideration of the fifth periodic report of Canada*, 25th July 2005.
150. Various US non-governmental organisations, *In the shadows of the war on terror: persistent police brutality and abuse in the United States. A report prepared for the United Nations Committee Against Torture on the occasion of its review of the United States of America's Second Periodic Report to the Committee Against Torture*, April 2006.

Case law (worldwide)

151. *Agdas v. Turkey*, no. 34592/97, ECHR, 2004 .
152. *Ahmet Ozkan and others v. Turkey*, no. 21689/93, ECHR, 2004.
153. *Andronicou and Constantinou v. Cyprus* (1997) 25 EHHR 491.
154. *Bubbins v. UK*, no. 50196/99, ECHR, 2005.
155. *Draper v. Reynolds*, 369 F.3d 1270 (11th Cir. 2004).
156. *Geraldine Finucane v. UK*, no. 29178/95, ECHR, 2003.
157. *Jordan v. UK* (2001) 11 BHRC 1.
158. *McCann and others v. UK*, no. 18984/91, ECHR, 1995.
159. *Makaratzis v. Greece*, no. 50385/99, ECHR, 2004.
160. *Nachova and others v. Bulgaria*, no. 43577/98 and no. 43579/98, ECHR, 2005.
161. *Policky v. City of Seward* (NE) F.Supp.2d, 2006 WL 1426506.
162. *R v. Clegg* [1995] 1 AC 482.
163. *Ramsahai and others v. The Netherlands*, no. 52391/99, ECHR, 2005.
164. *Simsek and others v. Turkey*, no. 35072/97, ECHR, 2005.

165. *Torres v. City of Madera*, 2005 WL 1683736 (E.D.Cal.).
166. *McShane v. UK* (2002) ECHR.
167. TASER International, *Memorandum of Law*, 3rd May 2004.
168. AELE Law Library of Case Summaries, *Assault and Battery: Stun Guns/Tasers*.

Parliamentary debates and ministerial statements (United Kingdom)

169. Hansard, Question on Tasers, 13th December 2005.
170. Hansard, Questions and Answers – June 2005 – September 2006.
171. Hansard, Written Answer on Taser Weapons, 21st November 2005.
172. Ministerial Statement on Taser, 15th September 2004.
173. Ministerial Statement and Home Office letter approving use of Taser, 21st March 2005.

Press coverage (worldwide)

174. ABC News, *Taser guns come under fire*, 30th January 2006.
175. ACPO, *ACPO Welcomes the extended use of Tasers*.
176. ALM Research, *Stun gun maker faces suits by victims police*, August 2005.
177. AT Burtka, *Electric shock from Tasers can injure and kill, lawsuits claim*, Association of Trial Lawyers of America, May 2005.
178. AT Burtka, *Tasers continue to draw scrutiny*, Association of Trial Lawyers of America, January 2006.
179. Amnesty Int. UK, *Amnesty concern as man dies following TASER and baton round shooting*, 17th October 2006.
180. Amnesty Int. UK, *Briefing following announcement that the use of Tasers was authorised for the G8 summit*, 20th May 2005.
181. Amnesty Int. UK, *News release following report on Taser use in the USA*, 28th March 2006.
182. Amnesty Int. UK, *Tasers, Amnesty International briefing as Cambridgeshire police introduce new electro-shock weapons*.
183. Amnesty Int. UK, *Tasers: Amnesty International briefing as Leicestershire police prepare to introduce new electro-shock weapons*, 28th July 2005.
184. Amnesty Int. USA, *Third So-Called 'Independent' TASER Study linked to Manufacturer*, 23rd May 2005.

185. Alan Erwin, www.mediapointireland.press.net, *Orde urged to reject use of stun guns*, 16th May 2007.
186. BBC, *I've been Tasered 200 times*', 16th May 2007.
187. BBC, *Police stun gun expansion planned*, 16th May 2007.
188. BBC, *Q&A: The Taser electric stun gun*, 30th November 2004.
189. Berenson, New York Times, *Doctors blame Taser stun gun for fibrillation*, 2nd September 2005.
190. CNN, *Police review policy after Tasers used on kids: Officers defend non-lethal use of force*, 2004.
191. Contra Costa Times, *San Jose Police given Taser rules*, 2005.
192. Daily Business Review (US), *Police agency alleges Taser company misled about safety of stuns* (includes discussion of a number of civil actions in the US), 20th July 2005.
193. Forbes.com (US), *SEC clears Smiths' Taser on safety claims*, 13th December 2005.
194. Force Science News, *Should Cops Stop Using Tasers? The Force Science Research Centre Weighs In On the Controversy*, December 2004.
195. Gilligan, Evening Standard, *Revealed: Taser lies and deaths that could come to Britain*, September 2005.
196. Graber, St Louis Post-Dispatch, *Teen shouting for Jesus dies after Taser shot*, 2006.
197. Independent Police Complaints Commission, *IPCC responds to Phillip Prout inquest verdict*, 11th November 2005.
198. Independent Police Complaints Commission, *IPCC Statement on Tasers*, 30th November 2004.
199. Independent Police Complaints Commission, *IPCC welcomes decision to allow firearms officers to use Tasers*, 15th September 2004.
200. J D Gallop, Floridatoday.com, *Police chiefs draft Taser policy: Controversy over use spurs guidelines*.
201. Jason Trahan, DallasNews.com, *With deaths, Taser scrutiny*, 6th April 2005.
202. Kevin Johnson, USA today, *Federal bureaus reject stun guns*.

203. L Arthur, *Experts dispute data on stun guns Taser International said its weapons were a safe way to subdue children, but some researchers say more study is needed*, Miami Herald, 5th December 2004.
204. Legal Coalition concerns to Victoria Police, Australia, *Lawyers warn against Taser guns*, 12th November 2004.
205. Liberty (UK), *Metropolitan Police and other forces plan to introduce 'Taser' stunguns*, 1st August 2001.
206. Liberty (UK), *Taser stungun 'trials' – Liberty comment*, 17th April 2003.
207. Lothian and Borders Police, *Taser Introduction, Lothian and Borders Police*, 9th January 2006.
208. Michael Howie, The Scotsman, *Police call for every officer to be issued Taser gun*, 27th April 2006.
209. National Litigation Bureau (US), *Plaintiffs' lawyers plan to stun Taser with their failure-to-warn suits*.
210. Newell, Arizona Daily Star, *Taser hit on girl, 9, stirs talk on ethics*, 2004.
211. NewsInferno.com, *Taser faces major challenge as first product-liability trial begins in Arizona*, 3rd December 2005.
212. Phoenix Police Department press release, *Police involved shootings lowest in 14 years*, 6th February 2004.
213. www.PoliceOne.com (US), *Department vs. Taser*.
214. www.PoliceOne.com (US), *New reports stress Taser's safety and effectiveness*.
215. Robert Anglen, The Arizona Republic *167 cases of death following stun-gun use*, 5th January 2006.
216. Robert Anglen, The Arizona Republic, *Scrutiny mounting on Taser use*, 5th May 2005.
217. Robert Anglen, The Arizona Republic, *Study raises concerns over Tasers' safety*, 13th February 2006.
218. Robert Anglen, The Arizona Republic, *Taser faces class-action lawsuit, Police department claims stun gun inadequately tested*, 21st July 2005.
219. Sunday Herald, *Frontline police demand to carry Taser stun guns*, 8th January 2006.
220. Sunday Sequence show, 1st October 2006.
221. TASER International, *21st and 22nd Product Liability Lawsuits Dismissed Against Taser International*, 6th July 2006.

222. TASER International, *Taser international receives letter confirming termination of investigation from US Securities and Exchange Commission: No enforcement action recommended to the Commission*, 15th May 2006.
223. TASER International, *Wisconsin Department of Justice Law Enforcement Standards Board Issues Electronic Control Device Recommendations*, June 2005.
224. The Business Journal (US), *Taser reports dismissal of wrongful death lawsuit*, 12th August 2005.
225. www.thisisthenortheeast.co.uk, *Plastic bullet man dies*, October 2006.
226. www.thenorthernecho.co.uk, *Death 'not linked to stun gun shooting'*, 19th October 2006.
227. www.thenorthernecho.co.uk, *Father dies days after plastic bullet shooting*, 17th October 2006.
228. www.thenorthernecho.co.uk, *Fireball threat man has chance to avoid prison*, 27th January 2007.
229. www.thenorthernecho.co.uk, *Four years for knife attacker*, 9th March 2007.
230. www.thenorthernecho.co.uk, *Officers use stun gun after knifeman fails to leave loft*, 22nd July 2006.
231. www.thenorthernecho.co.uk, *Swordsman shot by police*, 12th October 2006.