

[Previous](#)

UNITED STATES OF AMERICA

Excessive and lethal force? Amnesty International's concerns about deaths and ill-treatment involving police use of tasers

Introduction and summary

"I asked Borden to lift up his foot to remove the shorts, but he was being combative and refused. I dry stunned Borden in the lower abdominal area ... We got Borden into the booking area. Borden was still combative and uncooperative. I dried [sic] stunned Borden in the buttocks area..." After the final shock, the officer "noticed that Borden was no longer responsive and his face was discoloured." (extract from officer's statement on James Borden, a mentally disturbed man being booked into an Indiana jail.)(1)

James Borden was arrested in a disoriented state in November 2003 and died shortly after the administration of the last of six electro-shocks, delivered while his hands were reportedly cuffed behind his back. The medical examiner released a statement listing cause of death as a heart attack, drug intoxication and electrical shock. James Borden is one of thousands of individuals shocked with stun devices by US law enforcement agents each year as a growing number of agencies move to adopt such weapons.

More than 5,000 US law enforcement agencies are currently deploying tasers, dart-firing electro-shock weapons designed to cause instant incapacitation by delivering a 50,000 volt shock. Tasers are hand-held electronic stun guns which fire two barbed darts up to a distance of 21 feet, which remain attached to the gun by wires. The fish-hook like darts are designed to penetrate up to two inches of the target's clothing or skin and deliver a high-voltage, low amperage, electro-shock along insulated copper wires. Although they were first introduced in the 1970s, the take-up rate for tasers has increased enormously in recent years, with the marketing of powerful "new generation" models such as the M26 Advanced Taser and the Taser X26. Both fire darts which strike the subject from a distance or, as in James Borden's case, can be applied directly to the skin as a stun gun.

The manufacturers and law enforcement agencies deploying tasers maintain that they are a safer alternative to many conventional weapons in controlling dangerous or combative individuals. Some police departments claim that injuries to officers and suspects, as well as deaths from police firearms, have fallen since their introduction.

Amnesty International acknowledges the importance of developing non-lethal or "less than lethal" force options to decrease the risk of death or injury inherent in the use of firearms or other impact weapons such as batons. However, the use of stun technology in law enforcement raises a number of concerns for the protection of human rights. Portable and easy to use, with the capacity to inflict severe pain at the push of a button without leaving substantial marks, electro-shock weapons are particularly open to abuse by unscrupulous officials, as the organization has documented in numerous cases around the world.(2)

Although US law enforcement agencies stress that training and in-built product safeguards (such as chips which can record the time and date of each taser firing) minimize the potential for abuse, Amnesty International believes that these safeguards do not go far enough. There have been disturbing reports of inappropriate or abusive use of tasers in various US jurisdictions, sometimes involving repeated cycles of electro-shocks.

There is also evidence to suggest that, far from being used to avoid lethal force, many US police agencies are deploying tasers as a routine force option to subdue non-compliant or disturbed individuals who do not pose a serious danger to themselves or others. In some departments, tasers have become the most prevalent force tool. They have been used against unruly schoolchildren; unarmed mentally disturbed or intoxicated individuals; suspects fleeing minor crime scenes and people who argue with police or fail to comply immediately with a command. Cases described in this report include the stunning of a 15-year-old schoolgirl in Florida, following a dispute on a bus, and a 13-year-old girl in Arizona, who threw a book in a public library.

In many such instances, the use of electro-shock weapons appears to have violated international standards prohibiting torture or other cruel, inhuman or degrading treatment as well as standards set out under the United Nations (UN) Code of Conduct for Law Enforcement Officials and the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials. These require that force should be used as a last resort and that officers must apply only the minimum amount of force necessary to obtain a lawful objective. They also provide that all use of force must be proportionate to the threat posed as well as designed to avoid unwarranted pain or injury.

International standards encourage the development of non-lethal incapacitating weapons for law enforcement "for use in appropriate situations, with a view to increasingly restraining the application of means capable of causing death or injury to persons" but state that such weapons must be "carefully evaluated" and their use "carefully controlled".⁽³⁾ Amnesty International believes that this standard has not been met with regard to tasers, despite their increasing use across the country.

Amnesty International is further concerned by the growing number of fatalities involving police tasers. Since 2001, more than 70 people are reported to have died in the USA and Canada after being struck by M26 or X26 tasers, with the numbers rising each year. While coroners have tended to attribute such deaths to other factors (such as drug intoxication), some medical experts question whether the taser shocks may exacerbate a risk of heart failure in cases where persons are agitated, under the influence of drugs, or have underlying health problems such as heart disease. In at least five recent cases, coroners have found the taser directly contributed to the death, along with other factors such as drug abuse and heart disease. As discussed below, the death toll heightens Amnesty International's concern about the safety of stun weapons and the lack of rigorous, independent testing as to their medical effects.

This report includes a review by Amnesty International of information on 74 taser-involved deaths, based on a range of sources, including autopsy reports in 21 cases. Most of those who died were unarmed men who, while displaying disturbed or combative behaviour, did not appear to present a serious threat to the lives or safety of others. Yet many were subjected to extreme levels of force, including repeated taser discharges and in some cases dangerous restraint techniques such as "hogtying" (shackling an individual by the wrists and ankles behind their back). The cases raise serious concern about the overall levels of force deployed by some police agencies as well the safety of tasers.

Tasers have been described by many police departments as "filling a niche" on the force scale.⁽⁴⁾ However, Amnesty International is concerned that deployment of tasers, rather than minimizing the use of force, may dangerously extend the boundaries of what are considered "acceptable" levels of force. While the organization concedes that there may be limited circumstances under which tasers might be considered an alternative to deadly force, there is evidence to suggest that measures such as stricter controls and training on the use of force and firearms can be more effective in reducing unnecessary deaths or injuries (see below, page 9).

In its recommendations, contained at the end of the report, Amnesty International is reiterating its call on federal, state and local authorities and law enforcement agencies to suspend all transfers

and use of electro-shock weapons, pending an urgent rigorous, independent and impartial inquiry into their use and effects.

Where US law enforcement agencies refuse to suspend tasers, the organization is recommending that their use of tasers is strictly limited to situations where the alternative under international standards would be deadly force, with detailed reporting and monitoring procedures.

1. GENERAL CONCERNS ABOUT TASER USE

1.2. Background on Taser Use

"I have always stated that the only way to guarantee a knockdown of a human being is to shoot them in the central nervous system with a bullet. In my opinion the ADVANCED TASER comes extremely close to doing the same thing, but from a less-lethal perspective." Sgt Darren Laur, Control Tactics Coordinator, Victoria Police Department, Canada, writing in a review article, published in the October 1999 issue of Law Enforcement Technology.

"It just takes your legs out. It's like a jackhammer going Kaboom, Kaboom, Kaboom!" Sgt Burt Robinson Chandler, Police SWAT team, Arizona, describing the M26 Advanced Taser on website of security equipment company, Security Planet Corp.

Named after the hero of a popular science fiction series,⁽⁵⁾ tasers were originally developed by a California-based company in the 1970s. The Los Angeles Police Department (LAPD) became the first major agency to introduce them in 1974. (The videotape of the LAPD beating of Rodney King in March 1991 shows an officer holding a taser gun he had fired at King, trying to keep the wires from getting tangled as King rolled on the ground from police baton blows.) Tasers have been promoted as having advantages over other non-lethal weapons as they can be applied at a distance (avoiding injury to officers) and, unlike chemical sprays, are not affected by wind and do not risk contaminating officers or bystanders. However, the earlier taser models were not always effective, especially in the case of individuals who were highly agitated or under the influence of drugs such as phenylcyclohexyl piperidine (PCP).⁽⁶⁾ During the 1990s, companies started to develop more powerful prototypes of the taser and other stun weapons.

Thousands of US law enforcement agencies now deploy the M26 Advanced Taser, which are several times more powerful than the original version used by the LAPD and other agencies in the 1970s and 1980s. The M26 is one of a new generation of tasers developed by Taser International, an Arizona-based company, and was introduced for operational use in late 1999. It operates on 26 watts of electrical output (compared to 5-7 watts of earlier models) and discharges pulsed energy to deliver a 50,000 volt shock designed to override the subject's central nervous system, causing uncontrollable contraction of the muscle tissue and instant collapse.⁽⁷⁾ In May 2003, Taser International introduced a new model, the Taser X26, which is 60% smaller and lighter than the M26 but has the same voltage and, according to the manufacturer, an incapacitating effect which is 5% greater than the M26.⁽⁸⁾ Both fire two probes up to a distance of 21 feet and are programmed to be activated in five-second bursts of electricity, although, as shown below, the electrical charge can be prolonged beyond five seconds if the officer's finger remains depressed on the trigger. The shocks can also be repeated so long as both probes remain attached to the subject. The darts are fired by an air cartridge which has to be reloaded if a second firing is required. Both models have laser sights, for accurate targeting (and avoiding hitting vulnerable spots such as eyes or face). They also have a built-in memory option to record the time and date of each firing (see below for more on this).

Both the M26 and the X26 can also be used without the air cartridge, as "touch" stun guns, to apply electric shocks directly to the subject at close range. The duration of the cycle in stun gun mode is the same as in the dart projectile mode.

According to the literature, the new generation tasers are designed "...to incapacitate dangerous, combative, or high risk subjects that may be impervious to other less-lethal means, regardless of pain tolerance, drug use, or body size". They have been described as "the only less-lethal weapon that can stop a truly focused, aggressive subject" and as "specifically designed to stop even elite, aggressive, focused combatants".(9)

In meetings with Amnesty International, Taser International has stressed that, unlike earlier models, the M26 and X26 tasers are not designed to stop a target through infliction of pain but work by causing instant immobilization through muscle contraction. According to the company they are one of the few non-lethal weapons effective in causing incapacitation without physiological injury. They have pointed out that any pain involved is transient, with no after-effects. However, officers subjected to even a fraction of the normal taser discharge during training have reported feeling acute pain:

"Bjornstad, who was jolted for 1.5 seconds as part of his training, said all of his muscles contracted and the shock was like a finger in a light socket many times over. "Anyone who has experienced it will remember it forever ... You don't want to do this. It's very uncomfortable .. and that's an understatement." (*The Olympian*, 14 October 2002)

"It's like getting punched 100 times in a row, but once it's off, you are back to normal again." (*The Olympian* 2 March 2002)F

"It felt terrible." "It hurts. I'm going to think twice before I use this on anyone." (two officers quoted in the *Mobile Register* 8 April 2002).

"It is the most profound pain I have ever felt. You get total compliance because they don't want that pain again." (firearms consultant, quoted in *The Associated Press* 12 August 2003)

"They call it the longest five seconds of their life ... it's extreme pain, there's no question about it. No one would want to get hit by it a second time." (County Sheriff, quoted in *The Kalazazoo Gazette*, Michigan, 7 March 2004)

Officers were initially exposed during training to only a fraction of the normal taser discharge of five seconds, yet still testified to experiencing considerable pain. Amnesty International understands that it is now recommended that officers are subjected to a five-second shock, although at least one department no longer allows officers to be tasered at all during training, following complaints from officers.(10) While the pain is short-lived, this would not necessarily apply in the case of someone subjected to repeated or prolonged jolts of the taser darts or stun gun (see below). Amnesty International has been told by an expert who has experienced shocks from both models that the X26 model is even more painful than the M26.

Unlike the dart-firing probes, the touch stun function only acts on a small part of the body, and causes pain and debilitation rather than total incapacitation. A Taser International training manual states that "If only the stun mode is used, the M26 becomes a pain compliance technique..."(11) The advice given in the manual for "stun mode areas" is to "aggressively drive M26 into:

- Carotid/brachial stun area(12)
- Groin
- Common Peronial(13)."

Although, as stated above, the M26 and X26 tasers are programmed to set off an automatic five-second electrical charge, this happens if an officer pulls the trigger and releases it. The electrical charge can be prolonged beyond five seconds if the officer keeps his finger depressed on the trigger. A Taser International training manual states that "holding the trigger continuously beyond the 5 second cycle will continue the electrical cycle until the trigger is released". The following testimony was given by a police training officer at an inquest into the death of William Lomax, who had a taser in stun gun mode applied repeatedly to his neck in jolts lasting up to eight seconds each:

"if you hold the trigger down, it will go until the battery life runs out of the taser (sic)."

Juror: So it will go continuously until you let go?

Witness: correct."(14)

1. 3 Deployment of tasers in the USA: life saver or routine force tool?

More than 5,000 law enforcement and correctional agencies in 49 US states are currently reported to be deploying or testing taser equipment, with the take-up rate continuing to grow, reportedly by around 170 police agencies a month. Several US states which formerly banned all stun weapons have recently changed their laws to allow local and state police to deploy tasers.(15) In some states they are deployed by police on university campuses and they have also been used in schools (see below).

Tasers have also been purchased by the US army, including for use in Iraq. (16) The US Air Force also reportedly deploys tasers aboard aircraft carrying suspected al-Qa'ida members to Guantánamo Bay, Cuba.(17) While few details have been provided about the use of tasers by US military forces, one of the units deploying them in Iraq in 2003 was the 800th Military Police Brigade, accused of grave abuses in Abu Ghraib prison.(18)

New generation tasers have also been purchased, or are undergoing testing, by police or military forces in other countries, including, reportedly, Argentina, Australia, Canada, France, Germany, Israel, Malaysia, Mexico, Spain, Turkey, the United Arab Emirates and the UK.(19)

Tasers have also been authorized for use by the general public. Forty-three US states are reported to place few or no restrictions on possession of stun weapons by members of the public for private use.(20) While promoted as self-defence tools, for private users, they are easily open to abuse, without the controls or monitoring that apply to law enforcement use. Amnesty International cites several cases, below, in which parents have been prosecuted for child cruelty after using stun weapons to discipline their children. Stun weapons have also been reportedly used during the commission of crimes, or as instruments of torture or abuse, including of women by abusive partners or former partners.

Amnesty International is opposed to the sale of stun weapons for private use, given the difficulty in ensuring adequate standards of monitoring and control and the potential for abuse behind closed doors. While police officers undergo training and are subject to regulations governing the use of force, no such controls exist for the private sector. Unlike firearms, there are no licensing requirements in the USA for private use of tasers.(21)

The latest model for private use in the USA is the Taser X26c Citizen Defense System, which was introduced for sale on-line through Taser International in September 2004. According to company literature, the Taser X26c, which can also be used as a stun gun, has a 15 feet stand-off capability and "operates at a slightly lower output than the law enforcement Taser X26". Disturbingly, it also operates "with an extended duration of up to 30 seconds per discharge".(22)

In the UK, modern tasers have since 2003 been deployed by a number of police departments under the same strict guidelines as apply to firearms. They are allowed to be used only by authorized firearms officers, are kept in the firearms box and are issued only in appropriate situations where officers are faced with a threat of deadly force and the only other option would be use of a conventional firearm.

In the USA, tasers are authorized for use in much broader circumstances, as discussed below. Nevertheless, they are promoted in the USA, as elsewhere, as an important tool in saving lives and reducing the need for lethal force. Under international standards, lethal force may only be used by officers in self-defence or the defence of others when there is an imminent threat of death or serious injury, and "only when less extreme measures are insufficient to achieve these objectives".(23)

Taser International has repeatedly emphasized in statements and literature how taser use has saved lives. For example, in July 2004, the company issued a statement citing a case in which a woman advancing on officers with an eight-inch knife had been successfully disarmed with a taser rather than shot with a firearm and another case where a suicidal man threatening to cut his own throat was similarly disarmed without injury. The company stated that it had received "over 500 similar reports where officers have used the TASER to save a life", estimating that the true figure was likely to exceed 5,000 cases.(24) Claims that tasers save lives may, however, include incidents involving intervention at an earlier stage than a situation posing an imminent threat of death or serious injury. Taser International states in a lesson plan for US law enforcement agencies that:

"The Advanced Taser is not a substitute for lethal force. However, many situations that begin as standoffs have the potential to escalate to lethal force. Early, aggressive use of a less-lethal weapon like the M26 can prevent many of these situations from escalating to deadly force levels".(25)

Some police departments have reported a significant fall in police shootings following the introduction of tasers. In February 2004, the Phoenix Police Department, Arizona, announced that officer-involved shootings had fallen by 54% from 28 in 2002 to 13 in 2003, with fatal shootings down from 13 to 9 during the same period, the lowest number since 1990. Phoenix Mayor Phil Gordon said "I am proud that Phoenix is the first city in the nation to equip all of our police officers with tasers. We are committed to providing our officers with the latest technology, support and equipment that they need in order to protect them and the community."(26) A Taser International brochure reported that use of firearms and impact weapons by Orange County (Florida) sheriff's deputies fell by 80% following the introduction of the Advanced Taser in 2000, "reducing injuries and saving lives".(27)

Reports of a fall in police shootings in the cities of Seattle and Miami have similarly been attributed, at least in part, to the introduction of tasers. Both police departments reported no fatal police shootings for the first time more than a decade in the year tasers were introduced – in Miami's case there were no police shootings, fatal or otherwise, for the first time in 14 years.(28) Other departments have reported on specific instances where officers have used tasers instead of firearms to disarm suicidal or mentally ill individuals armed with weapons such as knives, although reports of officers using tasers when confronted with people with guns appear to be much rarer.

Amnesty International welcomes any reduction in the use of lethal force. However, claims that tasers have led to a fall in police shootings need to be put into perspective, given that shootings constitute only a small percentage of all police use of force. In contrast, taser usage has increased

dramatically, becoming the most prevalent force option in some departments. While police shootings in Phoenix fell from 28 to 13 in 2003, tasers were used that year in 354 use-of-force incidents, far more than would be needed to avoid a resort to lethal force.

Use of non-lethal weapons may be only one factor leading to a fall in police shootings and other serious force. In Miami, for example, the fall in officer-involved shootings may be due in part to greater oversight following several high profile prosecutions of Miami police officers for civil rights violations involving wrongful shootings and an ongoing federal Justice Department investigation into an alleged pattern of excessive force.(29)

Representatives of Taser International who met with Amnesty International in July 2004 said there had been a significant reduction in injuries to suspects and officers following the introduction of tasers, according to police reports of operational use across the USA. The company noted that many other types of force, such as use of batons or police dogs resulted in higher injury levels than the taser. It was stressed that a reduction in injuries was likely to be more pronounced where tasers were used below the level justifying lethal force as all use of physical force, including light hands-on force, could result in some bodily injury.

However, as shown below, many departments allow officers to use tasers in situations that would not justify the use of batons or other impact weapons liable to cause serious injury. Reports suggest that, in some departments, tasers are used by officers primarily as a substitute for pepper or chemical sprays, which may themselves be considered a relatively low-level force option. Amnesty International has frequently raised concern about alleged misuse of pepper spray by law enforcement officers, including its use in situations that do not merit this degree of force.(30) The organization suggests that, rather than substituting electro-shock weapons for pepper spray or other force options, better training and restraint in the use of force would be a more appropriate strategy in many situations.

Indeed, improved policies, training and oversight have been shown to be critical factors in reducing police shootings and injuries to suspects or officers. Such measures are likely to have a more significant impact overall than use of alternative weapons. In San Jose, California, for example, the police department obtained its first sizeable batch of new tasers in 2002, a year in which police shootings fell to zero. However, police shootings in San Jose had been falling since 1999, a development attributed in large part to better training on the use of force; the introduction of a Crisis Intervention Team (CIT) to defuse potentially dangerous situations involving disturbed individuals; and an independent auditor to monitor the department. Improved use-of-force policies, investigations and training led to a fall in police shootings and dog bite injuries in Washington, DC, where the Metropolitan Police Department (MPD) was once notorious for its high rate of officer-involved-shootings and injuries to suspects from police canines.(31) Other departments, including the Los Angeles Police Department (LAPD) and the Los Angeles Sheriff's Department (LASD), have noted similar trends.(32)

In fact, in San Jose, police shootings started to rise again after the introduction of tasers (which were issued to all patrol officers in May 2004), reaching a five-year high in 2004. (33) Their effectiveness in resolving use-of-force situations has been questioned by the San Jose Independent Police Auditor, who announced a review of the department's taser use in September 2004, following concern about two incidents in which police shot disturbed individuals after tasers failed to subdue them.(34) One case concerned a mentally disturbed man who became agitated after being asked to stop smoking in a coffee shop and allegedly threw a chair at officers. He was shot after the taser failed to subdue him. Questions have been raised as to whether other force tactics might have been more safely deployed in such a situation.

1. 4 Low on the force scale

Although described by the manufacturer as a suitable tool for "aggressive, focused combatants", the taser appears to be a relatively low level force option in many US police departments. A survey by Amnesty International of more than 30 US police departments (including 20 of the largest city or county agencies) indicates that tasers are typically placed in the mid-range of the force scale, *below* batons or impact weapons rather than at, or just below, lethal force. (35) Some departments place the entry level for tasers at an even lower level, after verbal commands and light hands-on force.

For example, a number of law enforcement agencies allow tasers to be used against "passive resisters" – people who refuse to comply with police commands but do not interfere with an officer and pose no physical threat.(36) Others authorize tasers at an entry level of "defensive resistance", typically defined as "physical actions which attempt to prevent officer's control but do not attempt to harm the officer".(37) The Miramar Police Department, Florida, told Amnesty International (in response to concerns raised about the stunning of a schoolgirl during a minor disturbance) that tasers were available "prior to the use of intermediate weapons" such as batons. A Philadelphia Police Department directive states that tasers may be used, among other scenarios, to "overcome resistance to arrest". Indianapolis police told Amnesty International that the entry level at which tasers could be used was "at any point force is needed".(38) While many departments authorize tasers at the level of "active physical resistance", according to a number of policies Amnesty International has seen, this can be in the form of "bracing or tensing" or "attempts to push or pull away". These scenarios hardly depict the "combative" or "aggressive" individuals described in promotional literature.

Amnesty International believes that electro-shock weapons, which have a powerful impact on the body and can cause acute pain, should never be considered a "low" or "intermediate" force option. However, a review of reported cases suggests that some departments are deploying tasers in routine arrest situations, at the first sign of resistance or in the face of relatively minor resistance. Incidents include cases of people under the influence of alcohol or drugs who failed to comply promptly with commands, people who "mouthed off" at officers and people engaged in minor acts of public disturbance. The use of electro-shock weapons in such circumstances appear to breach international standards set out under the UN Code of Conduct for Law Enforcement Officials and the Basic Principles on the Use of Force and Firearms. These require that force should be used only as a last resort, in proportion to the threat posed and the legitimate objective to be achieved.(39)

Training materials on tasers suggest that they are safe to use against a wide age range and that repeated shocks pose no additional risks. Confidence in such claims may explain why there are reports of tasers being used against elderly people and children, and of people being subjected to multiple shocks. Tasers have also been used to subdue unarmed mentally ill or disturbed individuals who were not committing a crime or posing a threat of serious injury. Given the pain and the psychological impact or fear caused by being stunned or threatened with an electro-shock weapon, the use or threat of tasers in these and other cases, even without physical injury, may constitute torture or other cruel, inhuman or degrading treatment.

The USA has ratified the UN Convention against Torture and the International Covenant on Civil and Political Rights (ICCPR), both of which prohibit torture and other cruel, inhuman or degrading treatment or punishment. The UN Human Rights Committee, the expert body which monitors compliance with the ICCPR, states that "the aim of the provisions of article 7 of the International Covenant on Civil and Political Rights is to protect both the dignity and the physical and mental integrity of the individual". The Committee emphasises that the prohibition of torture or cruel, inhuman or degrading treatment or punishment in article 7 "relates not only to acts that cause physical pain but also to acts that cause mental suffering to the victim."(40)

The following accounts, based on press articles, police reports and other sources, illustrate

Amnesty International's concerns about the way tasers have been used in various US jurisdictions.

Florida

Local police agencies in Florida were among the first to adopt the new generation tasers on a wide scale. Twelve (nearly one in five) of the recent US taser-related deaths discussed under Chapter 2 occurred in Florida, with four in Orange County alone. In addition to those cases, Florida police have reportedly used tasers to subdue:

- a man who refused to be fingerprinted and wrestled and shoved officers (Pembroke Pines Police Department, Broward County)
- a woman who interrupted a seminar at a country club and pushed officers away, shouting that they were "sick with demons" (Pembroke Pines Police Department)
- a man who refused to discard the drink he was drinking in a park and refused to turn round and be handcuffed (Orange County Sheriff's Office)
- a woman who, ordered out of a pool for swimming naked and once dressed, refused repeated commands to turn round and put her hands behind her back. (Orange County Sheriff's Office)
- a 15-year-old schoolgirl, who was tasered and pepper sprayed after arguing with officers after she and other children were put off a bus during a disturbance. (Miramar Police Department, Broward County)
- a 14-year-old schoolgirl who was tasered after fighting with a school "resource officer" in a classroom. The officer first used the taser as a "stun gun" applying it directly to her chest; when she continued to struggle he deployed the "air cartridge" twice before she was handcuffed. (Putnam County Sheriff's Office)(41)

In May 2004, the city of Melbourne, Brevard County, Florida, announced a review of police taser use after reports that officers had fired two tasers simultaneously at an unarmed 23-year-old man who had turned his back on officers when they called at his house to investigate a neighbour's complaint about loud rap music. He was allegedly jolted multiple times, causing acute pain. A study of police incident reports conducted by a local newspaper found that Melbourne police had used tasers against 75 people in 18 months, most of whom were unarmed.(42) They included

- a 14-year-old boy who had allegedly broken a window and tried to run away;
- a 50-year-old man who refused to give police his date of birth during a disturbance at a picnic;
- a woman jolted at least five times with a taser as an officer held her down.

In most or all of the cases cited above, the use of force was found to be in accordance with departmental policies. In the case of the 14-year-old tasered in the classroom, the Putnam County Sheriff's Office informed Amnesty International that "use of the taser in this instance is in accordance with agency policy", noting that the girl in question, who weighed 221 lbs (100 Kg), had a history of assaultive behaviour at the school. While recognizing the challenges posed by such behaviour, Amnesty International remains concerned at the use of an electro-shock weapon against a disturbed, unarmed teenager.

In July 2004, it was announced that eleven police agencies in Orange County, Florida, had agreed to restrict their use of tasers following a year-long review which suggested that some officers were too quick to resort to their weapons. Before the restrictions were imposed, officers were permitted to shock anyone who prevented an officer "from taking lawful action", including people engaged in "passive resistance": those who disobeyed an officer's verbal command without engaging in any threat or act of physical harm. The new rules allow officers to stun only people who show "active resistance". However, tasers can still be used well below the "lethal

force" level, including under such broad circumstances as "preventing an officer from making an arrest". Some US police agencies may continue to allow tasers to be used at the level of "passive resistance". Records from the Orange County Sheriff's Department, Florida (the largest county police agency), showed that the agency used tasers in 180 cases in which individuals were engaged in "passive resistance" from 2001 to October 2003, although this policy was reportedly under review.(43)

Colorado

A study by the Denver Post in May 2004 found that the Denver Police Department, Colorado, commonly used tasers against people who refused to submit to handcuffing or who walked or ran away from police officers. In 90% of cases the subjects were unarmed, and most were cited for minor offences. While in some cases tasers had been used to stop dangerous suspects and disarm the suicidal, they were more often used to force people to obey police commands and to shortcut confrontations. The study found that officers had tasered at least sixteen people who were already handcuffed, and sixteen juveniles (details of the latter cases were unavailable due to their age).(44) Most such usage was found to be within the official policy.

The Denver Police Department is one of more than 100 law enforcement agencies in Colorado to have adopted tasers and, by August 2003, had purchased enough X26 and M26 tasers to have one in every patrol car.

The Denver Post study was prompted by concerns raised by the American Civil Liberties Union (ACLU) of Colorado about inappropriate and abusive use of tasers by a number of local police and county agencies, including two cases where suspects died.(45) In several cases police subjected people to repeated shocks, sometimes while they were already restrained; other cases included people abused in local jails (see below). In many instances the accounts were corroborated by police reports. One of the cases taken up by the ACLU was that of a man who died after being tasered at least five times by Glendale police officers as he lay supine on the floor of his room in a drug-induced stupor (see Glenn Leyba case, chapter 2 below). Other cases involving the Glendale Police Department included the following:

- A man who was drunk and verbally abusive was tasered in the back for struggling while police applied handcuffs as he lay on the ground. He was given another jolt of electricity when he continued to resist as police walked him to a patrol car.
- Police tried to arrest a man for allegedly assaulting his girlfriend in the street. The man ran away and an officer followed him slowly in her police vehicle and told him to "Stop running or I am going to Tase you", before reaching out of her vehicle, while steering it with one hand, and firing the taser at him. The man fell to the ground and was tasered again when he tried to stand up.
- A man escorted from a restaurant by police officers was touch stunned in the leg for "refusing to obey verbal commands".

In September 2004, the Denver Police Department's Chief of Police, Gerry Whitman, announced that he had changed the department's use-of-force policy to allow officers to use a taser only on suspects exhibiting "active aggression" or "aggravated active aggression". Previously, about 20% of the department's taser incidents involved police responses to the lower standard of "defensive resistance" by a suspect. Under the department's policy, "active aggression" is defined as an assault or imminent assault, while "aggravated active aggression" constitutes more serious violence that could, in some cases, justify deadly force.

However, a report published by the Denver Post on 20 September 2004 found that policies among Colorado law enforcement agencies varied widely and that in some jurisdictions police continued to "shock suspects who do little more than mouth off, pull an arm away from a handcuff, run or

refuse to obey an officer's orders quickly". In three local departments – Longmont, Pueblo and Glendale – police had used tasers at a rate, on average, nearly four times greater than in Denver. The article cited cases in which suspects were subjected to repeated jolts or shocked while they were handcuffed. In one case, Commerce City Police Department officers used a taser on an allegedly drunken man seven times as they tried to take him to a detoxification centre; six of the electro-shocks were administered while he was in handcuffs. Of more than 500 cases reviewed by the Post from 15 local police agencies, only two were deemed by the departments concerned to have been inappropriate.

Portland, Oregon

An investigation by a weekly journal, *Willamette Week (WW)*, into taser use by the Portland Police Department, Oregon, published in February 2004, reported that, over a 19 month period, officers had deployed tasers in more than 400 cases, including on 25 people who were already in handcuffs.(46) The *WW* report, which was based on a review of police incident reports, stated that "numerous potentially lethal situations" had been averted using the taser, including suicidal individuals trying to force the police to kill them.(47) However, the *WW* also reported on incidents in which tasers were used against people who were not a serious threat but were merely verbally abusive or failed to comply with police commands. According to the newspaper, Oregon police had tasered people "after stopping them for non-violent offenses, such as littering and jaywalking, selling plastic flowers without a license, and failing to go away when told to". Police also used tasers on two 71-year-olds, one a woman who was blind in one eye, and the other a man who was trying to restrain a knife-wielding woman. The elderly man was shot with the taser after dropping onto his hands and knees instead of lying flat on the floor, as ordered by police. (See under **Lawsuits**, below, for details of the 71-year-old woman).

The paper also reported on the case of 20-year-old Dontae Marks, a bystander who protested when police tried to arrest a friend for being drunk outside a night-club. Police reportedly pointed a taser at Marks' chest when he refused an order to leave, then tasered him in the back as he walked away shouting an obscenity. Six officers then reportedly grappled with him in a struggle in which Marks was pepper-sprayed and touch-stunned at least ten times while lying face-down on the ground. He was reported to have sustained 13 taser burn marks across his back, neck, buttocks and the rear of his legs. He was later acquitted on charges of affray and has filed a lawsuit. According to the *WW* report, an internal police review found the taser use to be justified.

Dontae Marks' attorney is quoted as saying "They went straight for the Taser because it was quick and easy for them. He was doing what they wanted him to do, but because they didn't believe him, they tased him. And that's what blew the situation up." The following incidents were also cited in the article. All were reportedly found to be within police departmental policy.

- An 18-year-old was tasered when he told police responding to an under-age drinking party to "get the f...out of my house". He was tasered again when, after complying with an order to put his hands up, his hands started to drop.
- A driver pulled over on a bridge, angry that his car was being towed away for lack of insurance, was tased after repeatedly complaining and turning his head and body towards an officer.
- A woman who fell asleep in her parked car was tasered when officers woke her up when they opened her car door and, according to the police report, she glared at them and reached for her pocket. According to the *WW* review, police reports were inconsistent as to whether or not she was warned before the taser was used.

The Portland Police Department subsequently reviewed its taser use, finding that out of 595 uses since a pilot project began in July 2002, only one had been ruled out of policy.(48) In May 2004, Portland Police Chief Derrick Foxworth reported to the city commissioners that the department

would introduce stricter policies and training on taser use. The new policies would reportedly continue to allow officers to use tasers against handcuffed suspects but would instruct officers to consider other methods of control before stunning children, pregnant women and the elderly. At the time of writing, plans were underway to expand the deployment of tasers in the Portland Police Department, by issuing one to every patrol officer.

Chandler, Arizona

The Chandler Police Department, Arizona, is one of several agencies to have compiled detailed statistics about its taser use in a publicly available report.(49) The report documented 86 uses of the taser from April through December 2003, 42 of which involved police firing darts at suspects. In 17 cases the taser was used in touch stun mode and in five cases both the probe deployment and touch stun mode were used.(50) There were also 24 incidents in which the taser was used in Display Mode only. 97% of dart or stun deployments were in response to "active physical resistance" or higher on the force scale. "Active physical resistance" is defined in departmental policy as "acts of fleeing or escaping" or "suspect attempts to resist arrest without assaulting officer".

The report included a summary of each incident. Most of the incidents involved unarmed suspects who were reportedly engaged in aggressive or disorderly behaviour, and were resisting arrest; many occurred after or during a police chase. A breakdown of taser usage by "call type" (incident to which the police responded) showed that most police responses were to reports of domestic violence (19% of cases), followed by "suicide attempt" (13%). Others ranged from minor offenses to burglary. There is no indication that any of the incidents were found to violate the Chandler Police Department policy. The reports included use of tasers to subdue:

- a female driver of a stolen vehicle being followed by police who, after she crashed the car and fled on foot and was caught by officers, "would not comply with verbal commands and made a move towards her waistband".
- A trespassing suspect who was tasered when he "resisted being handcuffed".
- a female suspect who had broken into her grandfather's apartment and was tasered when she "attempted to walk away from the officer" and "pulled away" when he tried to stop her. The taser was applied five additional times before other officers arrived on the scene.
- a burglary suspect hiding in an attic when he "refused to comply with commands".
- a suspect who, stopped for driving with a suspended license, ran away from police.
- an autistic teenager after he assaulted his mother and wrestled an officer to the ground.
- a man standing on the sidewalk yelling and screaming at the sky. He was threatened with the taser if he did not comply with police commands to be quiet. He refused to comply and the taser was then deployed. The taser was effective but "as the subject began to get up, the taser was cycled a second time".
- A thirteen-year-old girl was tasered in a public library after she threw a book at someone and was "yelling obscenities". The case summary states: "The juvenile continued to be verbally disruptive and resisted when officers attempted to place her under arrest. The Taser was displayed and threatened. The juvenile continued to resist by curling into a ball. As the juvenile was preparing to kick at the officer, she was touch-stunned in the middle of her back". (51)

The Chandler Police Department study reported on 17 instances in which the taser was used solely as a touch stun gun. In most of the cases, it appears to have been used in order to gain compliance and included the following cases:

- An "out-of-control" high school student "continued to resist in the patrol car". The Taser was used on the leg as a touch stun to gain compliance.
- A suspect was stopped for "driving under the influence" and refused to comply with commands to place his hands behind his back to be handcuffed. The taser was displayed and he started to comply but placed his hands against his chest. The taser was then used in touch stun mode.
- During another arrest for "illegal consumption of alcohol", the "suspect resisted and the Taser was used in touch stun mode to gain compliance".
- The stun gun was used to gain compliance from a suspect in custody who was refusing to have blood drawn as per a court order. The taser was used a total of four times against the suspect.

Seattle, Washington

The Seattle Police Department (SPD) has issued two reports reviewing the first three years of the department's use of the M26 Advanced Taser: from January 2001 through December 2003. (52) During this period, the department recorded 428 taser applications. The SPD reported that tasers were used in a "wide variety of incidents", with "violent crimes and drug/alcohol incidents" together comprising nearly 40% of the situations in which tasers have been used. In only 23% of cases were the taser subjects armed, mostly with knives. Nearly two-thirds of taser subjects (65%) were impaired, often severely, by alcohol, drugs or a mental illness or delusion. The reports cite instances in which lives were saved through police use of tasers against armed, mentally impaired, individuals. In other cases the subjects did not appear to have engaged in life-threatening behaviour, but were combative or disturbed. Some of the incidents appear relatively minor. Interestingly, the proportion of dart deployments fell in relation to touch stun use over the three-year period. By the end of the third year, tasers had been deployed in dart projectile mode in 53% of incidents (compared to 56% in 2002 and 60% in 2001) and in touch stun mode in 34% of cases.

According to the above data, in 14% of cases tasers were deployed against subjects aged 20 or younger, and included at least one minor. This was a case in which an intoxicated male was observed near the fraternity houses of a university district, stumbling and walking into a lamp post. The report's summary of the case states: "when contacted, the subject refused to stop or cooperate, became extremely belligerent and verbally abusive, and then attempted to flee. After several commands to stop, the officer deployed a taser, which gained the subject's compliance".(53)

The SPD provided a racial break-down of individuals subjected to tasers through to May 2004, which showed that 45% of subjects were African American and 42% Caucasian.

In a report published in April 2004, the Office of Professional Accountability Review Board: OPARB, the police complaints oversight body for the SPD, recommended that "SPD Taser policy be refined to provide more detailed guidance and training delimiting officer discretion in light of growing Taser experience". The recommendation followed a critical review in the OPARB's annual report of two complaints involving police taser use. In one complaint, a young African-American male (described as "a domestic violence assault suspect") alleged that he was tasered 14 times – a claim disputed by the officer who said he had tasered the suspect "only" four times. The OPARB questioned the police finding that the complaint was "unfounded", noting that, despite the disparity in testimony, the complainant was "undisputably tasered multiple times", an issue which it said raised questions about appropriate use. The other complaint included a claim that a suspect was tasered simultaneously by two officers in touch stun mode while lying handcuffed on the ground. The OPARB criticized the decision of the police department's Office of Professional Accountability to exonerate the officers without determining clearly how many times the complainant (who had photographic evidence of burn marks) had been tasered.(54) The

SPD said it would review the OPARB recommendation and their policy and training.

In September 2004, a 17-year-old teenager zapped with a taser four times on the back of the neck during a traffic stop received \$25,000 in damages in settlement of a claim that Seattle police used had used excessive force and improper procedures. The incident happened in July 2003, when the youth, then aged 16, was riding in a car which was pulled over for a faulty headlight. The police report said he appeared to make furtive movements in the back seat. He was tasered when police searched him outside the car and, according to officers, he struggled and resisted. His attorney has reported that scars were still visible on the back of his neck one year later. In agreeing to an out-of-court settlement, the City of Seattle did not admit wrongdoing on the part of the police, but ordered the officer who had used the taser to receive additional training.(55)

Kansas City, Missouri

In June 2004, a Kansas City police officer electro-shocked an unarmed 66-year-old African American woman in her home, as she resisted being issued with a ticket for honking her car horn at police. The incident started when Louise Jones honked her horn while parking behind a police car. The police officers, who were responding to an unrelated disturbance in the street, returned to Ms Jones' house and tried to issue her with a ticket for unlawful use of her horn. She protested and a tussle ensued, during which an officer shocked her twice with his taser.

Kansas City Police Department's policy, introduced in April 2004, allowed officers to use tasers on subjects who displayed "passive resistance": people who refuse to follow police instructions but do not physically resist an officer. Following publicity about the Louise Jones case, the department set up a task force to review its taser policy. It also raised the threshold for when police could deploy tasers, allowing their use only against those engaging in some form of "active resistance". Two officers involved in the Louise Jones incident were later reported to have been disciplined in the case, although the type of disciplinary action was not made public.

The Task Force issued preliminary recommendations to the Kansas City Police Department in September 2004, stating that officers could keep tasers but the department should continually evaluate their use and conduct an independent study into their safety.

Cases reflect wider pattern

Amnesty International considers that using powerful electro-shock technology against unruly children; disturbed, intoxicated but non-dangerous individuals; and people who are non-compliant but who do not pose a probable threat of serious injury to themselves or others, is an excessive use of force which may also constitute torture or other cruel, inhuman or degrading treatment.

There are no national standards on police use of tasers and practice varies between departments, and even (as shown above) within states. However, it appears that many of the situations described above are not confined to a few departments but reflect a wider pattern across the USA. Reports suggest that tasers are commonly used to secure compliance in routine arrest and non-life-threatening situations.

A statistical analysis of 2,050 taser field applications across the USA, produced for Taser International in November 2002, for example, showed that in 79.6% of cases the suspects were unarmed; of the other cases, 15.6% had an "edged weapon" and 4.8% a firearm; in 4.9% of cases the "suspect weapon" category was "blunt force". An analysis of the "suspect force level" in which a taser was deployed gave the most common category (37% of cases) as "verbal non-compliance". This was followed by "active aggression" in 32.6% of cases; "defensive resistance" in 27.7% of cases and "deadly assault" in only 2.7% of cases.(56)

The survey also provided a "call-out" analysis (the type of incident to which police had responded) which listed 29.8% of cases as "violent" and 27.5% as "resisting arrest". The other

categories were "suicide" 14.7%; "civil disturbance" 11.9%; "Barricade" 5.8%; "serve warrant" 5.6% and "officer assault" 4.7% (57)

1.5 Children

Several of the cases described above involve use of electro-shock weapons against unarmed children, including use of a taser against a child in school and another in a public library. Amnesty International considers that the use of electro-shock weapons against recalcitrant or disturbed children is an inherently excessive and cruel use of force, contrary to international standards recognizing that children are entitled to special care and protection. (58)

While no national statistics are available, such cases may not be isolated. Amnesty International has received reports of tasers being used by police in schools to break up fights or when dealing with other incidents. In some cases, police reportedly fired their tasers when juveniles walked or ran away from officers. A review of cases published by a California newspaper found that few police agencies in Northern California had any minimum age restrictions on use of tasers, a situation that may be similar in other jurisdictions. (59)

According to the field study statistics cited above, 7.69% or 148 of the 2050 taser applications involved people aged from 12 to 18, although no breakdown was given of children under 18. A later analysis of 2,690 taser field uses shows 183 applications (7.4%) involving children aged 10 to 18. (60) Taser International has informed Amnesty International that it has records of four children under ten who were subjected to police tasers: one seven-year-old, one eight-year-old and two nine-year-olds, two of whom it says were armed with knives and one with a machete. However, there may be other cases. (61)

Most of the children whose cases are described above were involved in relatively minor incidents for which other measures could have been taken to de-escalate the situation. While one child (the schoolgirl tasered in Putnam County, Florida) had a reported history of disturbed or assaultive behaviour, children suffering from mental health or behavioural problems are more appropriately dealt with by health professionals trained in control, restraint and other techniques to deal with potentially violent situations. Rather than helping to control a child's behaviour, the infliction of electro-shocks is liable to increase mental stress and suffering as well as causing physical pain.

Disturbing cases continue to be reported. In May 2004 a police officer from South Tucson, Arizona, used a taser on a nine-year-old girl who was a runaway from a residential home for severely emotionally disturbed children. According to reports, the child was already handcuffed with her hands behind her back and sitting in the back of a police car when the taser was used as an officer struggled to put her into nylon leg-restraints. The officer is reported as saying that the girl was "screaming, kicking and flailing, and would not listen". Reportedly, the officer had requested the taser because he was aware of the girl's combative behaviour from past incidents. Fred Chaffee, president and chief executive of the children's home, was quoted as saying that a lot of children from the home "no matter what they're diagnosed with, have poor self esteem, poor impulse control and poor judgment, a learnt set of behaviours that aren't terribly socially acceptable". (62) The officer in the case was cleared of criminal wrongdoing but faced an administrative review at the time of writing.

There are also several reported cases in the USA in which parents have disciplined their children with legally available stun guns: such incidents have been characterised as child abuse and sanctions taken against the parents. For example, in May 2003, in Texas, Theodore Moody was sentenced to two years' imprisonment on conviction of injuring and endangering a child, for having repeatedly jolted his eight-year-old stepson with a stun gun to hurry him along to school. Reminiscent of arguments used for adopting stun weapons in law enforcement, both parents reportedly told officers that they did not consider stun gun jolts harsh punishment, noting that they left fewer injuries than other forms of discipline such as the "strap". (63) In June 2003, a

woman was arrested in Florida for placing a stun gun near to the ear of her 13-year-old daughter to frighten her for disobeying an order not to use a computer.(64) While US law enforcement policies specifically prohibit using instruments of restraint as punishment, the distinction can become blurred when stun weapons are used as a "compliance" or "control" tool.

1. 6 Tasers used against people already restrained or in custody.

While dart-firing tasers are promoted primarily as incapacitating, "stand-off," weapons which can stop an attacker from a distance, there are reports of people being stunned or threatened with repeated cycles of electro-shocks while already restrained and under police control. Amnesty International considers that using 50,000 volts of electro-shock against people who are restrained and pose no serious threat, is an excessive use of force, amounting in some cases to torture or cruel, inhuman or degrading treatment. The capacity to inflict repeated and extended shocks(65) at the push of a trigger makes the taser open to abuse in both dart and stun gun mode.

In some cases, individuals have been shot with taser darts, then threatened or stunned with repeated jolts of electricity while the darts remain in place during transportation or custody. For example:

- A handcuffed man tasered during his arrest, who still had the barbs attached, was stunned three more times by police officers for not cooperating when being walked to a police car to be taken to hospital, and for yelling and lifting his foot in the police car. While he was on a gurney (stretcher) in the hospital, an officer shocked him two more times "until he settled down". (Pueblo Police Department, Colorado)(66)
- An intoxicated man, arrested at a residence after complaints of loud noise, refused to allow police to attend to a cut on his eye and was taken out of the house in handcuffs and leg restraints. He was placed on a gurney to be taken to hospital. When he resisted having his hands tied to the gurney, an officer shot him in the chest with a taser. After going limp, the man again began to "thrash about" on the gurney and the officer "pulled the trigger for another five seconds". After the man became compliant and was placed in the ambulance, the officer handed his taser to one of the transporting officers "in case she needed to use it again". When the officer went to retrieve the taser later, the transporting officer told him that "she had to use the Taser for one five-second cycle while on the way to hospital because J again became resistive". The suspect was in full restraints at the time.(67) (Lakeland Police Department, Colorado)

In some US jurisdictions, high security prisoners are made to wear electro-shock stun belts during transportation, hospital visits or court hearings. Amnesty International has condemned such devices as inherently cruel and degrading because the wearer is under constant fear of being subjected to an electro-shock at the push of a remote control button by officers for the whole time the belt is worn.(68) A similar concern arises in cases such as those described above, where individuals in custody are under threat of repeated cycles of electro-shock at the pull of a trigger for as long as the barbs remain attached.

1. 6 (i) Tasers used as stun guns

While tasers appear to be used most often as dart-firing weapons, in a significant proportion of cases they are used close-up as stun guns. The statistical analysis of taser use, cited above, showed that just over 18% of taser applications were in stun mode.(69) Some departments have reported a higher percentage. For example, in Seattle, from January through December 2002, tasers were used as stun guns in 32% of cases, and both darts and stun guns were used in 12% of cases; stun gun use rose to 34% of cases in 2003.(70) In Oklahoma City, in 2003, nearly a third of all taser strikes against suspects were in touch stun mode.(71) In Portland, Oregon, 43% of taser

use was reportedly in touch stun mode.(72)

A Taser International training manual states that the M26 can function in stun mode after the probes have been fired, as a back-up weapon. The training manual also states that, if used only in touch stun mode, the taser becomes a "pain compliance" tool and officers are instructed to apply it "aggressively" to sensitive areas, including the neck and groin.(73) Company representatives have told Amnesty International that the primary intent of the stun gun mode is to act as a back-up to the dart-firing function, in case the darts fail to hit their target or become dislodged when the target remains a threat and there is no back-up team or time to reload the cartridge. This is reportedly the only way in which they are permitted to be deployed in the UK. However, it appears that some US agencies frequently deploy tasers in stun gun mode, without using them primarily as a back-up to dart failure in stand-off situations.

Tasers in stun gun mode are particularly easy to use because there is no need to load or reload a cartridge. Their use may be less easy to monitor than the dart-firing function, especially if, as has been reported, the in-built memory chip fails or is not regularly downloaded (see safeguards).(74) As they are applied through touch stunning the subject's skin or clothing, they tend to be used against individuals who are already in custody or under police control in some way. Amnesty International believes that these factors, together with the capacity to inflict severe pain to sensitive areas of the body, make the stun gun particularly open to abuse. Tasers in stun gun mode have been used to shock or threaten individuals restrained in police cars, hospitals and in local jails. In some instances they appear to have been used to punish prisoners for non-compliance or for simply yelling or "mouthing off" at officers.

Amnesty International is disturbed to note that some departments consider stun guns to constitute a low level of force, on a par with other "pain compliance" techniques such as wrist locks and control holds. There are reports of stun guns being used for minor resistant behaviour, such as prodding someone into a police car, or for getting individuals to comply more quickly while being booked into jail.

The Colorado ACLU has reported on several cases in which individuals were touch stunned while already restrained. Some of the details are confirmed in police reports seen by Amnesty International.

- a man was shocked in the genitals for continuing to resist while he was handcuffed and sitting in the back of a police car. The officer admitted to applying a "drive stun to the groin". (Westminster Police Department, Colorado)
- Police responded to a report of a possible overdose and took an apparently intoxicated and possibly suicidal man to hospital. A police officer applied a taser to the man while he was restrained on a hospital bed, screaming for his wife. According to the police report, "Officer Furney repeatedly told Andre to be quiet and when he did not comply placed the Taser against Andre's chest and tased him once". (Pueblo Police Department)
- A prisoner was strapped into a restraint chair for three hours for yelling and mouthing off. According to the ACLU "Officers periodically approached the prisoner, held a stun gun to his chest, and threatened to shock him. The prisoner has an enlarged heart and may be particularly vulnerable to adverse effects from electroshock weapons".(75) (Broomfield Detention Center, Colorado)

Similar cases have been reported elsewhere. In Baytown, Texas, a man who had reportedly suffered from two epileptic seizures was touch stunned in an ambulance when, confused and disoriented, he resisted while being strapped onto a stretcher (see **1.7**, below). In Minneapolis, Minnesota, an unresponsive, ill man, who was handcuffed behind his back,

was touch stunned twice in the back as police tried to lift him into the back of a police car. The man never regained consciousness and subsequently died (see case of Walter C Burks, under **2.6.** below).

Some people have been hit with taser darts and then jolted with stun guns while being taken under arrest, as illustrated by the case of Mark Dontae, who was struck ten times with a stun gun as he lay on the ground being handcuffed by police officers (see Oregon cases, above). Most of the 25 people shocked by Portland police while in handcuffs had the taser applied in "touch stun mode".(76)

1. 6 (ii) Jails and custody facilities

Although there are no national statistics on the number of custody facilities which currently deploy stun weapons, according to Taser International at least 1,000 US jails and prisons have adopted the new generation M26 or X26 Tasers, where they are deployed in both dart projectile and stun mode. They join an array of other electro-shock devices, including stun belts, stun shields and stun guns, used for some years in various US custody facilities. While in some facilities stun weapons are deployed only in response to specific incidents (such as disturbances, or movement of high-risk prisoners) in others they are more widely deployed. Amnesty International is concerned by reports that tasers have been used to gain compliance in the case of emotionally disturbed, intoxicated or uncooperative individuals in the booking section of jails. One inmate was reportedly shocked for clenching his fist instead of opening the palm to be fingerprinted; another for refusing to provide a blood sample. Other cases include

- An inmate of Creek County Jail, Colorado, was tasered with escalating jolts of electricity when he refused to pick up a food tray he had thrown onto his cell floor. The inmate was not combative in any way and the taser appears to have been used to punish him for repeatedly ignoring an order. According to the jail incident report, after throwing his food tray onto the floor, he was asked to step out of his cell and told "he would be tazed (sic) if he would not comply". He came out of the cell, as instructed, and sat on a bench. When he ignored orders to go back into the cell to pick up his food tray, he was shot with a taser and subjected to three separate two-to-three second cycles of electricity before a "full five second burst" was applied.
- James Borden, a mentally disturbed man arrested for a parole violation, died in November 2003 after being shocked at least six times with an M26 Taser for being "uncooperative" while he was being booked into Monroe County Jail, Indiana. He was reportedly face-down on the floor with his hands cuffed behind his back when a custody officer applied the shocks. A statement released by the county Sheriff's office after the incident said "standard procedures by trained officers to control combative or uncooperative individuals" had been used. However, a jail officer was later charged with battery in the case, after a judge found that Borden, while uncooperative, had not engaged in threatening or violent behaviour. (see Section 2 for further details of the case).
- During 2003, nearly a dozen inmates of Greene County Jail, Missouri, were allegedly threatened or abused with tasers for failing to comply with orders. They include a woman allegedly tasered for failing to remove an eyebrow ring while being booked into the jail; and a distraught woman tasered when she failed to quieten down. (See lawsuits, below). More recent allegations from the jail include disturbed inmates being shocked with tasers while strapped down on restraining beds.

Reports of abusive use of electro-shock weapons in US jails and correctional facilities are not new. Amnesty International and others have in the past reported on cases of prisoners being tortured or ill-treated with stun guns, stun shields and stun belts.(77) In some cases abuses have been linked to guards routinely carrying such devices.

For example, in 1994 in Maricopa County, Arizona, most jail custody staff were equipped with Nova 500 stun guns as part of a pilot study to evaluate the effectiveness of non-lethal weapons. A federal Justice Department investigation subsequently found a serious problem of excessive force in the Maricopa County jails, including misuse of stun guns, which they attributed, in part, to the "easy availability of these weapons." (78) The Justice Department's report noted with concern that stun guns were used to gain compliance from passively resisting inmates or against prisoners who were already restrained. Amnesty International also reported on similar complaints. (79) The Justice Department's expert consultant found that part of the problem was due to a change in jail policy to permit stun guns to be used against inmates engaging in "passive resistance" as a "preferred alternative to hands-on force". He believed this policy, which was in place for two years until changed in 1997, to be "the primary contributor to Detention Staff using these 'tools' in ways and under conditions that could well be, and have been, defined as 'excessive force'." (80) In order to avoid a federal lawsuit, the Maricopa County Sheriff's Office agreed to implement a more restrictive use of force policy which stated that "neither passive nor active resistance" alone were sufficient to justify use of non-lethal weapons such as Electronic Restraint Devices (stun guns) and prohibited their use "solely to gain compliance". (81)

In Virginia, routine deployment by guards of stun weapons in Wallens Ridge and Red Onion supermaximum security prisons led to widespread allegations of prisoner abuse between 1999 and 2001, including use of stun guns on inmates as punishment for minor acts of non-compliance. Several lawsuits were filed against the department for excessive force and in May 2001 the Ultron 11 stun gun was suspended for use in Virginia prisons, following an autopsy report questioning the device's role in the death of a prisoner. (82)

Amnesty International is concerned that, despite the experience in Virginia and the Justice Department's findings in Maricopa County, use of electro-shock weapons as a routine force tool appears to be on the increase as thousands of officers – in jails and on the streets – are issued with new, advanced tasers. The organization believes that this may similarly increase the potential for abuse of such weapons.

1. 7. Lawsuits for excessive force or ill-treatment

Tasers have been promoted as reducing liability against police departments for excessive force, on the grounds that they are less likely to cause injury than other more dangerous or lethal weapons. However, Amnesty International is aware of a number of lawsuits in which individuals claim to have sustained serious injury or trauma as a result of being tasered, in some cases in grossly inappropriate circumstances. In several cases, the officers' actions appear to have resulted from a lack of clear guidelines or training on the risks involved in using tasers in certain situations. In other cases, the alleged actions appear to amount to deliberate ill-treatment. Substantial damages have been awarded in several cases. Cases include the following:

Arizona: tasered man falls from tree

An \$8m claim was filed against the City of Mesa Police Department, Arizona, in the case of Bruce Bellemore, after he was allegedly left paralyzed in February 2004 when a police officer fired a taser at him as he stood in a tree. The shocks from the taser caused him to fall out of the tree onto his head. Bruce Bellemore was an unarmed suspect who had run from a house into a neighbouring garden, where he climbed the tree in order to escape from four guard dogs. At the time he was shot, he was already surrounded by four police officers, one of whom was pointing a gun at him, with the other three pointing tasers. Bruce Bellemore claims he told officers he was having difficulty climbing from the tree due to an injured wrist. Despite this, it is alleged, the fourth officer shot him once with a taser some 20 seconds after arriving on the scene and fired a second taser shot some 15-20 seconds later while Bellemore was convulsing from the first shot. The whole incident, from the time of the arrival of the first officer on the scene, to the time police called paramedics after Bellemore was on the ground, reportedly lasted no more than three and a half minutes. In a letter to the city authorities, Amnesty International said that use of the taser in

the case appeared to constitute a grossly excessive use of force, amounting to cruel, inhuman or degrading treatment. Amnesty International also expressed concern at the speed at which the officer resorted to the taser, contrary to standards which require that force be used only as a last resort after non-violent measures have been exhausted, and in a manner designed to minimize damage and injury.

Bellemore's lawyer told Amnesty International that he was concerned that there appeared to be no specific warnings or guidelines in police training manuals he had seen about the inherent risks involved in firing tasers at someone in a dangerously elevated position. An investigation into the incident by the Maricopa County Attorney's office concluded in July 2004 that the officer involved "did not commit any acts that warrant criminal prosecution". The incident was reportedly under police administrative review at the time of writing. (83)

California: pregnant woman loses baby.

The City of Chula Vista, California, recently paid \$675,000 to settle a damages claim in the case of Cindy Grippi, a woman, six-months' pregnant, who lost the baby she was carrying after she was shot with a taser. The incident occurred in December 2001 when Cindy Grippi reportedly went to enter her house against instructions of police officers during a domestic dispute involving her violent husband. According to her lawyer, she was not engaged in criminal or disruptive behaviour of any kind and no-one was fighting or arguing when police arrived. A police officer reportedly shot her in the back with a Taser as she was walking away from him, some ten seconds after he had got out of his car. She fell belly-down onto the concrete driveway and says she felt a sharp pain in her abdomen as the taser struck her. She was taken to hospital, where a check-up reportedly registered foetal heartbeats and she was discharged. However, some 12 hours later, she was diagnosed with a foetal demise. She underwent delivery of a stillborn child two days later.

According to the initial autopsy report, the 26-week-old female foetus was of normal gestational weight with no evidence of natural disease or trauma. The Medical Examiner could not find a cause of death, but suggested it might be linked with the mother's methamphetamine use. Two experts consulted by Cindy Grippi's attorney reached a different opinion, both finding the most likely cause of the foetal demise to be the electro-shock. One, a perinatalist, suggested that the foetal movement detected, after some difficulty, in the Emergency Room may in fact have been the mother's heart-beat. (84) Cindy Grippi had reportedly experienced a normal pregnancy, with regular check-ups and foetal movement up until the time she was tasered. The mother reported that there was no foetal activity beginning from the time of the taser incident. Furthermore, she had reportedly not taken any drugs during the seven days prior to being exposed to the taser.

The Medical Examiner's report was reviewed by an independent pathologist for Amnesty International, who noted that foetal movement some two hours after the taser incident would appear to suggest no clear link with the taser. However, she also raised a question as to whether the foetal heart tones really had been detected by the Emergency Room, and wondered whether Grippi had been thoroughly examined, given her claim of lack of foetal movement.(85)

Training manuals on taser use state that they are not advised for pregnant women, mainly because of the risk of trauma to the foetus from the mother falling. Otherwise, the company claims that there is no evidence that the electro-shock from a taser could damage an unborn child. However, Amnesty International is concerned by the absence of thorough, independent research into the medical effects of tasers and other electro-shock weapons on pregnant women. One past study has suggested an association between between electrical injury from a taser and miscarriage during pregnancy (see 2.7. below).

The officers in Gindy Grippi's case reportedly claimed that they were unaware that she was pregnant at the time the taser was deployed, although Cindy Grippi's relatives have stated that they shouted out that she was pregnant. If the officers' claims are true, this demonstrates a risk of

tasers being deployed unwittingly against vulnerable subjects – a risk that could increase if tasers continue to be used as a routine force tool.

Illinois: Pregnant woman sues police

In September 2004, a lawsuit was filed against police from Evergreen Park Police Department, Illinois, by Clarence Phelps and his pregnant daughter, Romona Madison, alleging that they were tasered and subjected to excessive force outside their home. The incident took place on 18 September 2004 at the daughter's wedding reception, when police arrived in response to a complaint about loud music and people dancing in the driveway. According to police accounts reported in the media, Phelps was uncooperative, refusing to produce identification, and was stunned with the taser after he allegedly pushed two officers. The police claimed Madison struck and shoved several officers and ran into the house. She was discovered hiding in a clothes cupboard and, after being warned, was shot twice in the abdomen with a taser when she refused to come out. Lawyers for the family claim that neither Phelps nor Madison had fought with officers and that Madison was followed into the house by overzealous officers who tasered her despite being told by several guests that she was two months pregnant. Madison was taken to a police station and released the same night, after being charged in connection with the incident. She received no medical attention while in police custody, apart from having taser darts removed by paramedics. She went to a hospital immediately on her release and, according to her lawyer, was told her baby's vital signs were weak. Her situation was still being monitored at the time of writing.

Portland, Oregon: elderly, blind woman paid damages

In April 2003, the City of Portland, Oregon, agreed to pay \$145,000 to 71-year-old Eunice Crowder in an out-of-court settlement of an excessive force claim. The claim arose from an incident in June 2003 in which City employees arrived at her home with a warrant to remove rubbish and debris from her yard. Police were called when Ms Crowder, who was blind and hard of hearing, failed to follow orders not to enter a trailer where items from her premises were being placed. The lawsuit claimed that two officers struck Ms Crowder in the head with a taser, dislodging her prosthetic right eye from its socket. It also claimed that she was tasered in the back and on the breast as she lay on the ground.

In legal briefs filed by the City, police reportedly acknowledged that Ms Crowder was "pushed onto the dirt next to the sidewalk" when she ignored their orders not to enter the trailer. The police also reportedly admitted that Ms Crowder's eye became dislodged; that they pepper-sprayed her (when she reportedly refused to stop kicking them) and stunned her three times with a Taser (twice in the lower back and once in the upper back). The City argued that the officers' actions were "lawful, justified and privileged" and that they used a "reasonable amount of force to defend themselves". (86) Nevertheless, City commissioners voted to approve the settlement rather than defend the case in court. The case is believed to have been one factor in a decision by the Portland Police Department to review its policies and impose restrictions on use of the Taser in the case of vulnerable people such as the elderly, children and pregnant women (see above).

Texas: disabled woman one of several to sue Baytown police

Several lawsuits have been filed against officers from the Baytown Police Department, Texas, for alleged abusive use of Tasers. Naomi Autin, a 59-year-old disabled Latina woman, was reportedly tasered three times by police officer Micah Aldred in July 2003 for banging on her brother's door with a brick. According to a lawsuit filed by Autin, she had gone to her brother's house to collect mail while he was away, and became worried after failing to get an answer from the house-sitter and seeing a truck parked in the driveway. She called the police and officer Aldred arrived on the scene. Autin, who is 5 feet 2 inches tall and suffers from severe arthritis, was allegedly tasered in the back by Aldred after she continued to try to gain entry to the house; the officer also allegedly threw her against a post, causing a severe cut to her head. A grand jury indicted the officer on charges of using excessive force, but he was acquitted at trial. Reportedly,

police officers corroborated his account that the use of force was justified. Amnesty International understands that no disciplinary action has been taken against the officer.

The same officer is a defendant in another lawsuit in which an unarmed woman wanted on an outstanding arrest warrant was allegedly "shocked numerous times about the back, face, neck, shoulders and groin".(87)

A lawsuit is pending against another Baytown officer for alleged excessive force during an incident in July 2003, in which the officer used a taser as a stun gun on a man who had just suffered epileptic seizures. The officer reportedly stunned 30-year-old Robert Stanley Jr at close range in an ambulance as medical personnel struggled to strap him down as he struggled in the throes of post-seizure confusion. An Internal Affairs investigation into the incident found that the officer had not violated any policies, and a grand jury investigation reportedly supported police accounts that Stanley had been sufficiently combative to warrant use of the taser.(88)

Washington: immigrant woman tasered in front of sons

A lawsuit has also been filed in the case of Olga Rybak, a 5 feet 4 inches tall Russian immigrant woman who was tasered multiple times by an officer from the Washougal Police Department, Washington, in August 2003, after she refused to sign a citation for a dog violation. The officer had gone to her house with the citation after her dog had bitten an officer the previous day. Rybak, who spoke little English, at first refused to sign it, asking for a translator. While attempting to arrest her, the officer shocked her at least 12 times in 91 seconds in front of her two young sons – first using the weapon as a stun gun, then stepping back to insert a cartridge and twice firing darts at Rybak who was writhing around on the front porch. When the boys (aged 11 and 12) tried to help their mother, the officer reportedly threatened to taser them as well. Rybak's attorney has informed Amnesty International that the boys have been receiving psychiatric treatment for Post Traumatic Stress Disorder as a result of the incident.

According to the attorney, the shocks caused extreme pain and left 27 red burn marks on Olga Rybak's body. The officer who used the taser (who was a taser Training Officer for the department) did not record the number of jolts in his report. The taser chip was tested only after photos of Ms Rybak's injuries were presented, and this recorded that the taser had been discharged 12 times during the incident.(89) In April 2004, Washougal's police chief, Robert D Garwood, reported that the officer had been demoted for using "poor judgement" in the case even though he had acted "within proper legal boundaries". Garwood said that the department would review its policy on taser use.(90)

Greene county jail, Missouri

A federal lawsuit was filed in February 2004 against the Sheriff and officers of Greene County Jail, Missouri, alleging a pattern of serious ill-treatment of jail inmates, including abusive use of tasers. The lawsuit was brought on behalf of 11 former inmates, most in temporary custody pending the posting of bail. The allegations of abuse ranged from physical brutality and excessive force to acts of humiliation, including guards forcing female inmates to take off their clothes in the presence of male staff and exposing them to the gaze and ridicule of guards and male prisoners. They include the following accounts from the alleged victims:

- An African American woman was asked to remove her jewellery on being booked into the jail in June 2003. She removed everything except an eyebrow ring, which was difficult to remove. When she asked for a mirror she was allegedly sprayed in the face with pepper spray and, when she put her hands up to protect her face, was shot with a taser, causing her to fall to the ground and lose control of her bladder. While on the ground, a male officer forcibly removed her eyebrow ring with pliers. She was left in her urine for several hours without being given anything to clean herself with.

- A man being taken to the "drunk tank" was slammed to the ground face-first. As he lay on the ground bleeding, a guard allegedly fired a taser gun at him, causing acute pain, although he was not moving or struggling. He was taken to hospital where he had stitches to his mouth. On return to the jail, when told he had failed to shampoo his hair satisfactorily, an officer threatened him with a taser gun, saying "you don't want this again". On his release, the jail tried to get him to sign "reprimand papers" stating that he was shocked with a taser because he had attempted to run to the jail entrance; according to the lawsuit, he refused to sign the papers because the facts in it were not true.
- A man who said he might be allergic to soap in the shower was threatened with a taser gun and told to use the soap provided.
- A man booked into the jail on an outstanding traffic warrant was allegedly assaulted and subjected to an "overly invasive bodily search" and repeatedly called a "faggot"(91). He was allegedly tasered while he was prostrate and in handcuffs.
- A woman booked into the jail in March 2003 was placed in a cell by herself in a distraught condition. A jail employee said he would taser her if she did not be quiet and calm herself. It is alleged that, while she was attempting to calm down, two guards entered her cell and one attached two taser clips to her shirt in the chest region; the other guard then activated the taser gun. According to the lawsuit, she suffered "severe burns and permanent scars to her chest and stomach" as a result of being tasered.
- A woman instructed to strip front of male guards hesitated after removing all her clothes except her underwear; she was pushed into the shower by a male guard and saw an officer pointing a taser at her as she emerged from the shower. It looked like a firearm and she was very scared, begging the officer "don't do this". She was given nothing to dry herself with and she was escorted from the room by male guards while wearing a small paper garment resembling a "diaper" and forced to walk past male inmates waiting to be booked into to the jail.

The lawsuit alleges that the complaints formed part of a pattern of abuse and poor training at the jail. According to Amnesty International's information, no charges have been filed against any of the officers involved and they remain on duty at the jail. The lawsuit was still pending at the time of writing.

1. 8. Safeguards and monitoring of taser use

One of Amnesty International's concerns is that electro-shock weapons can easily be used to ill-treat people without leaving substantial visible marks or injury. This can make it difficult for victims of abuse to obtain redress through complaints or lawsuits: one way of holding officers or police departments or authorities accountable. It remains essential - all the more so when deploying techniques that may not leave substantial marks or physical injury - for police and oversight agencies to ensure there are stringent safeguards in place to prevent abuse.

The new generation M26 or X26 type tasers are promoted as having a number of in-built safety features intended to guard against abuse and provide an audit trail to monitor each taser deployment. When darts are fired, confetti-like identification tabs are ejected which are printed with the cartridge's serial number, allowing departments to determine which officer fired the cartridge. Both the M26 and X26 tasers also have an on-board microchip memory function which records the date and time of each firing (trigger pull); this applies whether the taser is used in dart or touch stun mode (although the microchip cannot distinguish which mode the weapon is in). The data can be downloaded onto a computer which, according to the company, downloads to text in the case of the M26 but is encrypted in the case of the X26 to protect the integrity of the data.

The X26 Taser also records the duration and battery strength of each firing. This is important safeguard in monitoring how much force has been applied because, as shown above, the cycle of electricity can be prolonged beyond the five-second automatic discharge and can continue for as long as the operator's finger remains depressed on the trigger (reportedly, until the battery runs out). Officers may also cut off the flow of electricity before the standard five-second burst by switching the safety switch. However, the ability to record the duration of each firing is *not* contained in the M26 Taser, which remains widely used (possibly by a majority of US police agencies).

When asked by Amnesty International if there was a cut-off point for the duration of the cycle, Taser International replied that "there is no automatic cut-off" and "Given that these devices may be used in life-threatening situations, we believe it would be dangerous to build in an automatic weapon failure point", adding that "This is an area where we must rely upon the professional judgment and training of the officer".(92) However, Amnesty International is concerned that the ability to inflict prolonged electro-shocks increases the weapon's potential for abuse, particularly in the case of the M26.(93) The fact that, in practice, tasers are used in a wide range of non life-threatening situations adds to the organization's concern. According to the testimony of a police taser training officer in one department, officers were trained to use the taser "as many times as it takes to gain compliance."(94)

The microchip function provides an important tool of accountability, especially in the case of the X26. However, it is not failsafe. In certain instances a "corruption" may occur during the firing cycle which prevents the software from recording the firing record, and the internal clock may not always be set accurately.(95) Amnesty International was told that the clock has to be re-set whenever the device is stored without batteries. Most importantly, such safeguards need to be backed-up by monitoring and regular downloading of information, as well as detailed use-of-force reports filed by all officers at the scene. There are a number of concerns about the adequacy of safeguards and monitoring of taser use in practice, including the following

- While most departments require officers to fill out a written use-of-force report whenever they fire their tasers, sources have reported that not all departments automatically download the microchip data to match against the police reports (to check, for example, how many times the charge was triggered). It is also unclear how many departments regularly download the microchip data for general monitoring purposes. The organization believes it is essential that all relevant data on taser use be regularly reviewed and analysed.
- The quality of information provided in police reports varies. It appears that not all departments, for example, explicitly require officers to record when tasers are drawn and displayed, when not fired. According to Taser International's website, it is quite common for officers to "spark" their tasers or direct the laser beam at someone to secure compliance without actually firing the weapon. As this is a significant threat of force, such incidents should be recorded on the use-of-force form so that the appropriateness of the force level can be reviewed. All police officers should also be required to record every trigger pull; this has not always happened, according to reports Amnesty International has seen.
- Because often they do not leave substantial marks or injuries, police taser use may not be subjected to the same levels of scrutiny as weapons such as batons or flashlights which trigger investigations when injuries result. Tasers receive far less scrutiny than police firearms use, where incidents are usually reviewed at a higher level within the department (such as a Firearms Review Board) as well as by outside review bodies.
- There is little public scrutiny of taser use either nationally or within police departments. Police use-of-force reports are generally not made public and most

police departments have not released detailed public reports about their taser use to date. Amnesty International believes it is essential for police departments and authorities to provide detailed, public reporting on use of electro-shock weapons given their capacity for misuse. Public concern about reports of inappropriate use have led some departments to review their policies (see Portland, Oregon, for example).

- There are no national standards and no official statutory, national, reporting system on taser use, or any independent mechanism for collecting and evaluating field data. While Taser International maintains its own database of use, the company estimates that only one in ten deployments of Advanced Taser are reported to the company by police forces.(96)

1. 8 (i) Safeguards against unwarranted injuries

While tasers are promoted as causing less injury than other impact weapons, serious injuries can arise if the barbs strike certain parts of the body or the subject is in a vulnerable location. Officers are trained not to fire the dart projectiles at sensitive areas such as the head, throat, eyes or groin, and both the M26 and X26 models have laser trained beams designed to ensure accuracy when the darts are fired.

Secondary injuries can also occur when the subject collapses and falls to the ground. The manufacturer's safety guidelines warn of the risks of death or serious injury if someone is tasered while at risk of falling from a high building, although it is unclear to the organization how far law enforcement policies include a more general warning about the dangers of firing tasers at people in elevated or other vulnerable situations. One man in Arizona, whose case is described above, was paralyzed after being tasered out of a tree.(97) In June 2004, in Louisiana, Jerry Pickens, aged 55, died after falling and hitting his head on concrete when police shot him with a taser. Pickens, who was drunk and unarmed, was shot in the back as he tried to walk back inside his house following a domestic argument. His family questioned why police had resorted to the taser in his case.

The taser darts can puncture skin and cause burns at the barb sites. These are reported to be minor in most cases. However, several cases have been reported in which scars from taser burns have remained visible many months after the incident. Some US departments require all persons struck by taser darts to be taken to hospital to have the barbs removed but not all agencies have this requirement.

Although maintaining that tasers are "medically safe" (an issue discussed below), Taser International has warned in training literature that it is "not advisable" to use the Advanced Taser on a pregnant woman or an elderly person, unless all other means short of lethal force have been used, because of potential risks in such cases.(98) However, it is unclear how far such warnings are incorporated into police agencies' guidelines. As described above, two women were stunned despite alleged warnings by others present that they were pregnant.(99) Several elderly people have been tasered despite posing no serious threat. At least one agency, the Portland Police Department, Oregon, had no guidelines restricting taser use against pregnant women or the elderly, until the policy was changed earlier this year. It has recently been reported that the warning against using tasers on the elderly is no longer included in Taser International training manuals, as the device is no longer considered harmful in such cases.(100) Amnesty International was seeking clarification of this with the company at the time of writing. Meanwhile, the organization remains concerned about the use of tasers against elderly people, given their enhanced risk of suffering injury from falls as well as an increased risk of underlying health problems.

The company also issues a warning not to use tasers in flammable or combustible environments

because of a risk of ignition from the sparking action. However, in Colorado, a police officer reportedly fired a taser at a man parked next to gasoline pumps at a convenience store, despite this being a high-risk environment. (101) In California, a man was touch-stunned while lying on a garage forecourt (see case of Roman Gallius Pierson, at **2.3**, below).

In Joplin, Missouri, there was concern that a gas explosion that killed a suicidal man and fatally injured a police officer in August 2004 may have been triggered by police use of a taser. The disturbed man had turned on the gas in his home before police arrived and the house exploded after one of the officers fired his taser at him. The final report of the investigation into the 11 August incident, made public in October 2004, found there was not enough conclusive evidence to determine the cause. Police said that electric light switches, a pilot light, an electric fan or static electricity on the suicidal man's clothes could have ignited the gas.(102)

Company literature includes a warning never to use a taser on someone who has been exposed to alcohol-based pepper sprays, which are highly flammable. Some police agencies are reported to have switched to non-flammable water-based pepper sprays following the introduction of tasers. However, flammable sprays remain on the market, available for both law enforcement and private use. Several people have been pepper sprayed and then struck with tasers (see **2.6**, below). In one recent case, a man's hair is reported to have caught fire after he was pepper sprayed and tasered.(103) Amnesty International was seeking information on the solution contained in the sprays used in this and other cases, at the time of writing.

Amnesty International believes that all tasers should be subjected to safety tests to ensure that they will not cause unwarranted injuries or fatalities because of their design and technological functioning in real-life situations. All agencies which deploy tasers should issue detailed safety guidelines, with clear warnings and restrictions on their use in high-risk situations. Amnesty International also believes it is advisable to take tasered subjects to hospital to have barbs removed and to check for other possible adverse effects.

1.9 Widening taser use

In many of the police taser incidents described in this report, officers appear to have breached international standards requiring that law enforcement officials must apply only the minimum necessary force after exhausting non-violent alternatives. However, in most such cases, the officers' actions were not found to have violated police use-of-force policies. Amnesty International believes that no safeguards can be effective without tighter policies and measures to limit the circumstances under which tasers are authorized.

Some US law enforcement agencies, including the New York City Police Department (NYPD), issue tasers only to specialised units such as emergency response teams. However, many departments, far from limiting taser use, are moving towards routinely arming all their patrol officers with such weapons. As of June 2004, more than 700 US police agencies, including those in Albuquerque, Phoenix, Reno, Sacramento, San Diego, San Jose and the Orange County Sheriff's Office (Florida), are reported to have purchased Taser products for every front line patrol officer, a trend which appears to be increasing.

Data from the Orange County Sheriff's Office in Florida showed that, by May 2002 – just over a year after they were first deployed – tasers had become the most prevalent force option for the department, constituting 68% of all use-of-force incidents (see chart, below). Taser use reportedly rose to 77.6% of all force incidents in 2003.(104)

However, the data also reveals that, while police use of chemical sprays, police dogs, physical force and firearms dropped by about 21% in the year after tasers were introduced, the overall number of times force was used by Orange County deputies actually *increased* by 37%.(105) A brochure on Taser International's website reports a staggering 72% increase in use of force by

Orange County deputies from 1999 to 2002, in line with increased taser use.(106) Similarly, in May 2004, a local news agency reported that the use of force against suspects in the city of Orlando, Florida, had "nearly doubled in the last 14 months since Tasers were issued to police", although they arrested fewer suspects.(107) According to the same source, while police injuries in Orlando decreased significantly, injuries to suspects stayed the same.

Use-of-Force Breakdown for the Orange County Sheriff's Office, Florida

	1999	2000	2001	2002*
Chemical Force	300	263	221	64
Physical Force	78	75	52	29
Firearms	5	13	4	0
K9	62	60	48	29
Impact Weapons	27	21	13	5
Impact Rounds	0	1	2	0
TASER	0	3	228	201
Total Use-of-Force incidents	410	383	527	295

* Data through May 2002 only. Source: Orlando Sentinel, 29 July 2002.(108)

The above data suggests that officers may be using tasers in situations which would previously have been resolved without the use of force. Amnesty International is concerned that issuing such weapons to all patrol officers may increase officers' readiness to resort to such force, given the ease with which tasers can be used, and the temptation to use them pre-emptively at the first sign of resistance. This may lead to an increase in cases of excessive force and ill-treatment, especially given the broad range of circumstances in which tasers may be authorized.

In addition, Amnesty International is concerned about the potential risks of unwarranted injuries and deaths if tasers are used against a widening pool of the population, many of whom may have underlying health conditions which could make them vulnerable to adverse reactions from electro-shock. The potential health risks are discussed in chapter 2 below.

2. DEATHS IN CUSTODY AFTER TASER USE

Since June 2001, more than 70 people have died in police custody in the USA and Canada after being struck with tasers, with the number of reported cases rising each year. Amnesty International's data shows two deaths reported in 2001, 13 in 2002, 20 in 2003 and 38 from January to mid-October 2004.(109) These figures are higher than the total number of taser-related deaths reported in the previous 25 years.

The manufacturers of stun weapons claim that their products are medically safe, an issue discussed in more detail below. Taser International, which told Amnesty International that it tracks reports of deaths, has issued a number of public statements asserting that in no case has the taser been found to be a "direct cause" of a fatality. The company has pointed out that the deaths are similar to thousands of other in-custody deaths in the USA from drug induced causes or other factors unrelated to taser use. They claim that the increase in taser-related fatalities is due to the fact that tasers are now more widely deployed and will inevitably be used in some cases where people are in the throes of toxic overdoses or other fatal conditions. In several cases their own medical experts have reviewed the evidence and specifically excluded the taser as a cause of death.

Amnesty International acknowledges that coroners have usually attributed cause of death to factors unrelated to taser use, such as drug intoxication or heart disease. However, some medical experts believe taser shocks may exacerbate a risk of heart failure in cases where people are agitated or under the influence of drugs or have underlying health problems. In at least five recent cases, coroners have found the taser contributed to the deaths (see below). The rising death toll heightens Amnesty International's concern about the safety of such weapons and the lack of rigorous, independent testing of their medical effects. While there have been some limited studies of earlier stun weapons, there has been no peer-reviewed medical literature published on the medical effects of the new more potent M26 or X26 Advanced Tasers deployed in the cases described in this report.

Amnesty International has reviewed information on 74 deaths reported since June 2001, including autopsy reports in 21 cases.(110) Nine of the deaths occurred in Canada, with the rest in the USA. The deceased were males aged between 18 and 59 years of age, of varying racial or ethnic origin, with the exception of one case involving the death of a female foetus after the pregnant mother was tasered.(111) Most cases are believed to involve use of the M26 Taser which was the version most widely deployed during the period in question. While detailed information was not always available, the cases nevertheless highlight some disturbing concerns which Amnesty International believes should provide the basis for a full, independent inquiry and further research.

2. 1. Overview of AI concerns:

Many of the deaths involved individuals who had apparently high concentrations of drugs in their system or other risk factors for fatal arrhythmias. Drug intoxication, sometimes combined with other factors, was overall the most common cause of death reported (although coroners' reports were still pending in many of the more recent cases). Violent struggle, "positional asphyxia" following restraint, and "excited delirium"(112) were cited in some cases as a sole or contributory factor leading to sudden cardiac arrest. However, Amnesty International believes that questions remain about the role of the taser in at least some of the fatalities: whether the electro-shock could have exacerbated breathing difficulties caused by factors such as violent exertion, drug intoxication or use of other restraint devices, triggering or contributing to cardiac arrest. At least 15 of the victims had underlying heart disease which some medical experts believe may cause more susceptibility to electro-shock. Concerns have also been raised about the potential risk of adverse effects from taser currents in people under the influence of certain drugs.(113)

These concerns are supported by the fact that, in five cases (James Borden, William Lomax, William Teaseley, Jacob Lair and Keith Tucker), medical examiners found that the taser had directly contributed to the deaths, along with other factors, including heart disease, restraint and/or drug intoxication. In another case (Gordon Randall Jones), a coroner is cited as stating he believed the taser played a role in the death. The short time lapse between taser use and cardiac or respiratory arrest in some cases also raises issues of concern, and in one case (Alvarado) the coroner noted a temporal link between the taser and cardiac arrest and said he was unable to exclude the taser use as a possible cause. In another case (Clever Craig), the coroner also may have indicated a link with the taser given his autopsy finding of cause of death to be: "cardiac dysthythmia during an episode of excited delirium following electrical shock". In several cases death was given simply as "sudden cardiac arrest", with no clear underlying causes (see, for example, the case of Frederick Jerome Williams, below and also the case of Richard Baralla, under 2.6). These cases also raise questions as to whether the taser may have been a factor. A chart attached as Appendix A lists the 74 cases, giving (where information was available) cause of death; contributory factors cited in coroners' reports; number of taser discharge cycles; time lapse between taser shock and cardiac or respiratory arrest.

Dr Sidsel Rogde, an independent forensic pathologist who reviewed 16 autopsies for Amnesty International, also raised concern about a possible link between the taser and deaths, giving her opinion that it could not be ruled out as a contributory factor in at least seven cases.(114)(It

should be noted that the autopsy reports were not available to Amnesty International in three other cases where coroners reportedly found the taser played a role in the deaths – William Lomax, William Teaseley and Jacob Lair – so these cases were not included in Dr Rogde's findings.). Dr Rogde also questioned the findings relating to drug toxicity in some autopsies, noting that high blood concentrations *post mortem* may reflect a redistribution of blood during, for example, resuscitation, and do not necessarily reflect toxic levels of drug concentration before death. There were also several cases in which death was attributed in the autopsy report to drug intoxication where the drug levels were not necessarily fatal. Dr Rogde stated: "In my opinion, death can be attributed to drug overdose only when other causes are excluded". Dr Rogde's comments are included in some of the individual case summaries, below.

Amnesty International is also concerned about the overall levels of police force used in the cases reviewed which, in many instances, appears to have gone beyond what was warranted by the threat posed. In only eleven cases were suspects reported to be armed. While most of the deceased had been engaged in disturbed or agitated behaviour, and some were reportedly combative during arrest, few appeared to pose an immediate threat of substantial physical harm at the time force was used. Yet they were subjected to high levels of force which sometimes involved multiple restraints, including use of chemical spray, taser and dangerous techniques such as "hogtying" (see below). Two people died in Gwinnett County, Georgia, after being tasered and strapped into restraint chairs. In several cases the taser appears to have been deployed against individuals passively resisting arrest or refusing to comply immediately with an order. In one case, for example, a mentally disturbed man was reportedly tasered after refusing to step out of his shorts while being booked into a jail; another man was tasered as he lay supine on the floor of his home in a drug-induced stupor. Another man stopped on suspicion of driving while intoxicated was tasered after he had fallen into a ditch and, according to a police spokesperson, "was resisting, but he wasn't fighting".(115)

Based on the available information, Amnesty International believes that in many cases the police use of force was excessive, contravening international standards and amounting in some cases to cruel, inhuman or degrading treatment. In only one case (Borden) was an officer criminally charged with excessive force; in most cases officers' actions were found not to have contravened either criminal statutes or policies, although a number of cases remained under investigation.

Several lawyers representing families of the deceased expressed concern to Amnesty International at what they believe was undue force in the case of individuals who were ill or mentally disturbed and should have received treatment rather than a response more appropriate, as one lawyer put it, to a "crime in progress". At least a third of those who died had histories of mental illness or showed signs of mental disturbance at the time of their arrest. Others were ill through drug intoxication or other causes (e.g. epilepsy). One person was observed to have seizure activity before he was shocked (see Alvarado case, below). Many of these individuals were not involved in criminal behaviour at the time they were taken into custody. Amnesty International believes that the appropriate response in such cases should have been to seek medical attention or the assistance of services such as a mental health crisis intervention team rather than a law enforcement response. Although paramedics were often called to the scene, in some cases there were delays, or the deceased were taken to jail rather than to hospital.

In some of the above cases officers' actions appear in breach of Article 6 of the UN Code of Conduct for Law Enforcement Officials which states that "Law enforcement officials shall ensure the full protection of the health of persons in their custody and, in particular, shall take immediate action to secure medical attention whenever required." Article 6 (b) states that where medical personnel are attached to a law enforcement operation "... law enforcement officials must take into account the judgement of such personnel when they recommend providing the person in custody with the appropriate treatment through, or in consultation with, medical personnel from outside the law enforcement operation".

2.2. Multiple or prolonged taser discharges

Amnesty International is further concerned that, in more than half the cases, the deceased were subjected to multiple taser discharges (cycles of electro-shock), in one case as many as 12 or 13 jolts and in some others six or more discharges.(116) In most such cases each cycle would normally last for the full default five-seconds (or in some cases, longer, see below). Information on these cases suggests not only that the taser was not immediately effective on the first shock but that it may have caused the subject to become more agitated in some instances, leading to further use of force. A training manual on the Advanced M26 Taser produced by Taser International, advises officers to "be prepared to deliver more than one cycle from the Taser, and be prepared to use strikes, impact weapons and other uses of force in conjunction with the Taser to gain compliance".(117) The company maintains that it is safe to use repeated cycles as the amperage (current) remains the same and the charge is not multiplied. However, Amnesty International believes that questions remain about the harm and stress caused by subjecting someone already in an agitated state to multiple electro-shocks, especially in conjunction with other force.

According to a field study of 2050 taser uses, most incidents involved only one taser discharge.(118) It appears that the reported fatalities cases may therefore involve a disproportionate number of multiple discharges (as well as other force), an issue which Amnesty International believes requires urgent review.

The ability to prolong the electrical cycle beyond five seconds, for as long as the officer keeps his finger depressed on the trigger, is also of concern as this may dangerously increase stress levels. In one case, an officer applied repeated jolts of the taser in stun mode to the neck of a disturbed man high on drugs who was being pinned down by four security guards trying to handcuff him. One jolt lasted for eight seconds; another for six seconds. The man subsequently went into cardiac arrest and later died. An inquest jury attributed cause of death, in part, to the taser (see case of William Lomax, below). The psychological and physiological effects of prolonged, as well as repeated, taser shocks also requires urgent review by relevant independent experts, including those in the field of cardiology and electrophysiology.

2.3. Sample case summaries

- James Borden, aged 47, died in Monroe County Jail, Georgia, on 6 November 2003, after being stunned at least six times with an M26 Taser. Police had arrested him earlier that evening for violating a home detention order (Borden had been spotted the previous day acting in a confused and disoriented state near a local convenience store).(119) According to a subsequent lawsuit, at the time of his arrest Borden "exhibited slurred speech, was unstable on his feet and was physically weak". An Emergency Medical Team (EMT) ambulance was called and medical personnel indicated that he needed to go to hospital but he was taken to jail instead. He was tasered on arrival at the jail, reportedly for "thrashing around" and talking incoherently as he was being removed from a police car. Once in the jail, still with his hands cuffed behind him, the same officer (Shaw) shocked Borden several more times for being "uncooperative" and failing to comply with a command to step out of his shorts or pyjama pants which had fallen around his ankles. In one statement, Shaw is reported to have said:
"... I asked Borden to lift up his foot to remove the shorts, but he was being combative and refused. I dry stunned(120) Borden in the lower abdominal area ... We got Borden into the booking area. Borden was still combative and uncooperative. I dried stunned Borden in the buttocks area".

Borden was then reportedly pinned to the floor of the booking area and shocked again, after which he turned blue and lost consciousness. An ambulance was called

and he was taken to hospital where he was pronounced dead. A statement released by the county jail authorities just after Borden's death said that "standard police procedures by trained officers to control combative or uncooperative individuals" had been used.

The autopsy report gave cause of death as consistent with "cardiac dysrhythmia, secondary to hypertrophic cardiomyopathy [abnormal thickening of the heart muscle], pharmacological intoxication and electrical shock", with manner of death "accidental".

A Special Prosecutor was appointed to investigate the case and, in May 2004, the officer who had used the taser on Borden was charged with two counts of battery (battery with a deadly weapon and battery causing serious bodily injury). Each charge carries up to eight years' imprisonment. Another officer present, who had pinned Borden to the ground as the last electro-shock was applied, was not charged. The trial was still pending at the time of writing.

The forensic pathologist who reviewed the autopsy for Amnesty International found that, although the concentration of the drugs ephedrine and promethazine were "apparently high", many drugs are redistributed after death, especially after aggressive resuscitation, and that "high blood concentrations of a drug do not necessarily mean that death is caused by intoxication".(121) Noting the short time frame between the cardiac arrest, struggle and use of the taser, she gave the opinion that "death might be related to the use of the taser, in combination with his heart disease". She noted that "people with heart disease might also die in connection with such a stressful situation without the use of a taser". She found the "excruciating pain" invoked by the taser might also be a factor in the death of a person with serious heart disease who "may have an increased risk of death during stressful situations, including physical as well as mental stress".

- Eddie Alvarado, aged 32, died in June 2002 in Los Angeles after being tasered five times while handcuffed behind his back. The autopsy report states that "According to the history, the decedent exhibited violent and irrational behaviour. He was observed to have seizure activity and collapsed prone on the floor". The taser was used when he continued to exhibit "irrational behaviour, growling and yelling, thrusting upper torso and kicking firefighters and LAPD officers". He was placed in a "hobble restraint" (a form of hogtie) and was subsequently found to be in pulmonary arrest. Cause of death was given as "sequelae of methamphetamine and cocaine use, status post restraint, including taser use." (122) The coroner also noted a "temporal relationship" between restraint, taser application and his cardiopulmonary arrest but found the manner of death "undetermined" (see below).
- Glenn Richard Leyba, aged 37, died in Glendale, Colorado in September 2003. According to a report on the case by the District Attorney's office, paramedics arrived at Leyba's apartment after his landlady called for an ambulance, and found him "laying face-down, rolling from side to side ... making moaning and whimpering sounds". A police officer twice used her taser on him as a stun-gun when he failed to respond to attempts to roll him over and became "physically resistant". The police report is cited as stating that the second stun mode discharge "increased his level of agitation". The same officer then fired a taser dart into Leyba's back, resulting in Leyba "moaning, screaming and 'flailing' his legs and in an increase in his level of physical agitation. It did not, however, gain Mr Leyba's compliance". Altogether, Leyba was electro-shocked in stun or dart mode at least five times, after which he "stopped all physical resistance" and was handcuffed behind his back. The report states that "while being wheeled to the ambulance, the paramedics noticed that Mr Leyba's skin color was grayish, that he had stopped breathing, and that he had no

pulse". Efforts to resuscitate him were unsuccessful and he was pronounced dead in hospital.(123)

The coroner gave cause of death as "cardiac arrest during cocaine-induced delirium".

The report from the District Attorney's office noted that there were inconsistencies in the various police and witness reports as to the mode, placement and time of taser discharges.(124) There was also disagreement about the level of Leyba's resistance. The four paramedics on the scene separately testified that he was not trying to hurt anyone and was "delirious" and kicking his feet "in no particular direction". One paramedic noted that he appeared to be very scared and was "combative from altered mental status, not combative as if resisting". One wrote in a "Patient Care Report" that he and another paramedic disagreed with the officer's use of the taser "at least when it was being used in the stun mode" and that *the stun discharges "only served to further agitate Mr Leyba"*(AI emphasis). Despite these findings, the District Attorney's office concluded that the officer's actions did not violate any Colorado criminal statute and "constituted both a legitimate defense of others and a legitimate effort to prevent Mr Leyba from causing himself serious bodily injury".

- Roman Gallius Pierson, aged 40, died in October 2003 in Yorba Linda, California. Police had responded to reports that a disturbed man had been running in and out of traffic. According to press reports, Pierson had run into a gas station forecourt and was rubbing ice onto his face, complaining of being hot and thirsty, when the police arrived; he was shot with a taser when he ignored an order to lie down on the pavement; while on the ground, he was tasered again when he began "grappling with police", according to a police spokesman. He went into cardiac arrest at the scene and died in hospital. The autopsy found cause of death due to acute methamphetamine toxicity, and notes a history of coronary artery disease.
- Gordon Randall Jones, aged 37, died in Orange County Florida, in July 2002, after reportedly being jolted at least 12 times with a taser. (125) According to media reports, the taser was used after Jones became disruptive outside a hotel and "refused to leave and pulled away from deputies". He walked with deputies to an ambulance but died on the way to hospital. Cause of death was given in the initial autopsy report as "positional asphyxia, secondary to the application of restraints in the setting of acute cocaine intoxication". The autopsy findings noted "history of recent electrical trauma" and the Deputy Chief Medical Examiner William Anderson, who conducted the autopsy, has been quoted in press reports as stating that he believed the taser shocks contributed to Jones' death, making it harder for Jones to breathe.(126) However, county officials requested a second expert opinion from forensic pathologist Dr Cyril Wecht who concluded that Jones had died primarily from a cocaine overdose. The independent forensic pathologist who reviewed the first autopsy for Amnesty International noted that "the concentrations of cocaine are fairly high but not necessarily lethal", citing her previously stated concerns about the reliability of accurately measuring toxic drug levels *post mortem*. She gave her opinion that "cocaine, taser and restraint may all have played a role in his death". (127)
- Dennis Hammond, aged 31, died in Oklahoma City, in October 2003. Officers had responded to complaints by residents that Hammond was walking up and down the street and screaming at the sky. They found him sitting on top of a mailbox in a delusional state, bleeding from the legs, chest and feet. Police reportedly used a taser on him when he refused to listen to their commands. He was jolted five times in total but he pulled out the darts. He was then struck with a beanbag device before officers were able to handcuff him. Paramedics from an emergency ambulance team called to the scene were bandaging his wounds when "he turned blue and stopped breathing". The autopsy report noted a blunt force head injury and multiple injuries to his abdomen, thighs and back, multiple abrasions and superficial cuts. Cause of death

- was given as "acute methamphetamine intoxication".
- Michael Sharp Johnson, aged 32, died in Oklahoma City in November 2003. Officers responded to reports of a burglary in progress and found Johnson sitting in the living room, yelling. When he would not calm down or follow orders to get on the ground, officers shocked him five times with a taser and three others helped gain control to handcuff him. The autopsy report states: "During the brief struggle, he was 'tasered' multiple times before they were able to handcuff him. Approximately two minutes later he stopped breathing and EMSA(128) was called. He was transported to the emergency room in full cardiorespiratory arrest and was placed on the ventilator. ... He died approximately 22 hours and 30 minutes later". The autopsy report gave cause of death as "acute congestive heart failure due to cocaine induced cardiac arrest," with manner of death "accident".
 - William Lomax, aged 26, died in Las Vegas, Nevada in February 2004, after allegedly fighting with police and security guards at a housing complex. At an inquest in the case, the security guards testified that they had approached Lomax because he appeared to be overdosing on drugs, "dazed and confused", walking in circles, lifting his shirt and sweating. A struggle followed, during which a Las Vegas police officer jolted Lomax seven times with an X26 taser in stun gun mode. Some of the jolts were applied as he was pinned face-down on the ground by four security guards who were trying to handcuff him and again when he was face-down on a gurney (stretcher). According to inquest testimony, at least three of the jolts were applied to the side of his neck, a procedure authorized during police training. When asked if the Las Vegas Police Department placed a limit to the number of shocks which could be applied, a taser training officer said:
"What we tell and train our officers is, you can use this as many times as it's going to take to get compliance".(129)

Data downloaded from the taser's microchip revealed that the seven shocks were applied over a period of 9 minutes, 55 seconds, in cycles lasting, respectively, two seconds, four seconds, two seconds, six seconds, eight seconds and six seconds. A paramedic called to the scene testified that "the Taser didn't seem to have any effect. It made him angry".(130) After Lomax was placed face-down on a stretcher, officers noticed he had stopped breathing. Paramedics got his heart beating again in the ambulance and he was placed on a ventilator. He died the next day without regaining consciousness.

At the inquest, the Medical Examiner, Ronald Knoblock, testified that "cause of death was a cardiac arrest during restraining procedures", with Phencyclidine (PCP) intoxication and early bronchial pneumonia contributing factors. The pathologist found that Lomax's obesity and the fact that he was placed face-down with pressure on his diaphragm had restricted Lomax's breathing, which would already have been affected by the drugs and the physical struggle. When asked if the taser had played a role in the death, he responded:

"Yes. The taser (sic) was used in this instance as a restraining device, and in the cause of death I incorporated that into the restraining procedures during which the cardiac arrest took place."

Dr Knoblock also observed that, while the levels of PCP in Lomax's system raised his metabolic rate, the amount of drug was "not an extremely toxic level". He added that he could not establish that the taser of itself caused the death or that Lomax would not have died without it. The inquest jury's verdict was that:

"the means by which the deceased met his death was a combination of drugs, restraining force, and the use of the taser (sic)".

The jury also found the guards and officer's actions in restraining Lomax to be "excusable" and cleared them of wrongdoing. The Las Vegas Police Department was

reported to be re-evaluating its training policies in light of the ruling.

- Frederick Jerome Williams, aged 31, died in Gwinnett County Jail, Georgia, in June 2004, after being shocked with a taser while being strapped into a restraint chair. According to media reports, police went to his home after receiving a call from Williams' nine-year-old son saying that his dad was "talking crazy" and not taking his epilepsy medication. The boy reportedly asked for an ambulance "because my dad is saying all sorts of stuff and he is hitting my mom with a belt". When police arrived, Williams called the officer "the devil" and grabbed the officer's baton and threw it at him. Despite the son's request for a "hospital truck", police arrested him and took him to jail. He was reportedly struck twice with a taser while being strapped into a restraint chair and was noticed to have stopped breathing seconds later. He died later in hospital.

The autopsy is reported to have found that Williams had died of brain damage caused by "lack of oxygen and/or blood to the brain" from a heart attack triggered during the altercation. The forensic examiners reported that "There is no evidence the Taser directly caused or contributed to his death", but were unable to determine the reasons for the heart attack.

Williams was the second person to die in Gwinnett County Jail after being tasered and strapped into a restraint chair. Ray Austin, aged 25, died in September 2003 after fighting with deputies, being shocked three times with a taser, restrained in a chair and given psychotropic drugs. He had a history of mental illness and disciplinary problems.

Following William's death, two Georgia police agencies (Macon Police Department and Forsyth County Sheriff's Department) said they were suspending their use of tasers and a third (College Park Police Department) was reported to have shelved plans to purchase them.

- Jacob Lair, aged 29, died in June 2004, following an altercation with officers in Sparks, Washoe County, Nevada, when police entered his residence to question him about an alleged theft. In September 2004, the Washoe County Coroner, Vernon McCarty, reported that Lair had died of "acute methamphetamine intoxication with associated cardiac arrhythmia while engaged in a physical struggle with law enforcement officers involving a Taser gun, pepper spray and restraints". McCarty said that the Taser was "part of the scenario" which had contributed to his death, observing that, while Lair had methamphetamines in his system, the levels "were not as high as you would normally expect" and that the death could not be called a drug overdose.(131)
- Willam Teasley, aged 31, died in Anderson County Detention Center, South Carolina in August 2004. According to media reports, officers used a taser to subdue him after he became violent while being booked into the jail and "shortly after he was shocked [he] stopped breathing". A preliminary autopsy reportedly showed he had died from cardiac arrest. The deputy county coroner, Charlie Boseman, is quoted as saying the taser contributed to Teasley's death, combined with a medical history that included heart disease.(132) Teasley reportedly had other health problems, including severe brain damage resulting from an accident in 2003. The preliminary autopsy report was passed to the State Law Enforcement Division investigation team, with a final determination of manner of death pending the results of this inquiry.
- Keith Tucker, aged 47, died in August 2004 in Las Vegas, Nevada – his was the second taser-related death in the city in six months (see Lomax case, above). According to media accounts, police responded to a 911 call from a roommate that Tucker was acting strangely. They found him talking incoherently and used batons and a stun gun after he allegedly punched an officer. He went into cardiac arrest at

the scene and died later in hospital. In October 2004, the Clark County coroner determined that Tucker suffered a cardiac arrest brought on by the attempted restraint, including the batons and the taser. An inquest was scheduled for 22 October 2004.

2. 4. Questions regarding time lapse between taser and death or loss of consciousness in the cases reviewed

A major cause of sudden cardiac arrest is severe disturbance of the heart rhythm known as ventricular fibrillation: rapid contractions of the heart caused by irregular electrical signals in the ventricles, preventing blood from being pumped from the heart. The condition causes loss of consciousness in seconds, and death (or brain death) usually within minutes if the patient cannot be successfully resuscitated. Ventricular fibrillation can be caused by a myocardial infarction (heart attack), electrocution or drowning and, in the case of electrocution, would usually follow immediately after application of the shock.(133)

In February 2002, Dr Robert Stratbucker, Medical Director for Taser International, reviewed three cases in which people had died after being struck with M26 tasers and held that the time delay between the application of the Taser and the deaths clearly ruled out the Taser as a cause of death. Dr Stratbucker asserted: "The only plausible cause of death from electrical injury not leaving tell-tale skin lesions – clearly not present in any of the cited cases – is ventricular fibrillation, a fatal disturbance of heart rhythm which ensues immediately upon shocking the heart with greater-than-threshold, non-Taser-like electric current pulses. Specifically, if the Taser output were to cause cardiac arrests, it would be immediate."(134)

In a letter to the ACLU of Colorado in February 2004 on deaths of people struck by police tasers, Taser International reiterated Dr Stratbucker's findings, stating: "If the electrical stimulation of the TASER device were to play a causal role in the death, the death would be immediate (this has never happened)."(135)

However, there are several cases in which cardiac or respiratory arrest appears to have occurred immediately or very shortly after the taser discharge, or after the last of multiple shocks. This may indicate a causal link between the taser and the death or cardiac or respiratory arrest. Amnesty International does not have complete information on the cases and the exact time lag is not always clear in autopsy reports (which rely on police reports which themselves may not always give an exact time sequence). In some cases, autopsy reports or investigations are still pending. However, Amnesty International believes that a temporal link between the use of the taser and loss of consciousness cannot be ruled out in a number of deaths and that this issue raises a serious concern that requires further careful review and investigation by independent medical and scientific experts.

For example, in the cases cited above:

- According to reports, after the final shock, an officer noted that James Borden was no longer responsive and his face was discoloured. An ambulance was called and attempts at resuscitation failed. He was pronounced dead on arrival at hospital. The autopsy report in the case of Eddie Alvarado states that: "After the 5th taser application, he moved away from the mirror and prone on the floor (sic). He was then hobble-restrained. Subsequently, he was found to be in pulmonary arrest ... and was pronounced dead on arrival to the hospital". Although cause of death was given as drug intoxication, the autopsy report stated:

"The circumstances indicated a temporal relationship between restraint, including taser application, and his cardiopulmonary arrest. However, this autopsy does not

provide sufficient medical evidence to conclude or exclude that taser use contributed to the death. It should be noted that after taser, the decedent was noted to have a weak pulse and agonal EKG change. Hence, the manner of death is undetermined."

- In Glenn Richard Leyba's case, a paramedic on the scene reported that Leyba "is limp after the last taser" and appears to be unconscious; after being lifted onto the stretcher he "became apnic (sic)" (non-breathing) and a monitor "confirmed pulselessness". Attempts to resuscitate him failed and he was pronounced dead on arrival at hospital.

The forensic pathologist who reviewed the autopsy for Amnesty International found that, although the coroner had ruled out the taser effect, there might well be a connection between the last taser and the handcuffing behind the back, with cocaine also being a major factor.

Several other individuals are also reported to have gone into respiratory or cardiac arrest at the scene. According to media reports, Roman Gallius Pierson, for example, was handcuffed after the second taser shot and "after about a minute, officers noticed he was not breathing".(136) Terrence Brian Hanna, who died in Canada, was tasered and "subsequently went into cardiac arrest at the scene." Frederick Williams was shocked while being strapped into a restraint chair and "seconds later" his heart stopped. William Teasley was shocked with a taser and "shortly after he was shocked, he stopped breathing".

2. 5. Delayed death: metabolic acidosis

There has been some discussion in the medical literature of the possible effect of tasers on metabolic acidosis – a potentially fatal disturbance of the body acid-base balance.(137) Metabolic acidosis can occur in individuals who are severely agitated and this can lead to ventricular arrhythmia, especially in the presence of certain toxic drugs.

Taser International has suggested that the taser is not only safer than many weapons but can actually work to prevent metabolic acidosis because its instant incapacitation of the subject cuts short the duration of struggle and any dangerous build up of acid.(138) However, one federal study suggested that "deaths following Taser use may be related to the ability of these devices to cause increased muscle activity and decreased breathing"(139) and other studies have suggested that further research into the effects of tasers in acidosis is required (see 2.7, below). As noted above, in several of the cases reviewed by Amnesty International, the deceased continued to struggle and exhibit agitated behaviour, sometimes after repeated stunning.

An article on the effects of stun guns and tasers, published in the medical journal, the *Lancet*, in September 2001, addressed the risk of acidosis and ventricular dysrhythmias in people in states of severe agitation or physical aggression, particularly when under the influence of drugs such as phencyclidine (PCP) or cocaine. The article noted:

"The taser itself may affect acid-base balance by briefly increasing skeletal muscle activity and decreasing respiration."(140)

The authors reviewed one earlier study in which three people (high on drugs) went into cardiac arrest between 5-25 minutes after being hit with tasers and stated:

"By this time, taser-induced muscle contractions would no longer be present, and one would expect the individuals to be relaxing and able to breathe in a way that would compensate for a metabolic acidosis. *Such may not be the case if the individuals remained agitated or were prevented from breathing freely*" (AI emphasis).

Amnesty International believes that these concerns should be examined in the light of a number

of recent taser-related deaths, particularly in cases where individuals were tasered and continued to fight or struggle, and were then hogtied or subjected to other restraint after application of taser.

2. 6. Impact of other restraints

In at least 24 of the cases reviewed, the deceased appear to have been coerced into restraint positions which can dangerously restrict breathing and have been associated with deaths in custody from "positional asphyxia". Such positions include being held face-down on the ground with weight or pressure applied to the chest. Individuals who are obese, have underlying heart disease and/or who are severely agitated or intoxicated from drugs or alcohol are believed to be at increased risk from such procedures.

In at least eight cases, the deceased were placed in a "hogtie" or "hobble restraint", with their wrists or elbows bound behind them to their shackled ankles. This form of restraint is considered to be a particularly dangerous and potentially life threatening procedure, especially if the subject is in a prone position.(141) Standard-setting bodies discourage use of hogtying and urge that departments avoid holding anyone in restraints, even handcuffs, in a face-down position.(142) While some US departments have banned hogtying Amnesty International is disturbed that many agencies continue to use the procedure in some form.

Four of the deceased were reportedly put into "chokeholds": the application of pressure to the neck, constricting the flow of blood to the brain. The procedure is known to be dangerous and many departments either ban all forms of chokehold or restrict their use only to deadly force situations where no alternatives are available.(143)

Several of the deceased were pepper sprayed before being tasered. Pepper spray, which acts on the mucus membranes and respiratory system, can further restrict breathing and has been associated with in-custody deaths in the USA and Canada. Amnesty International is concerned that use of multiple restraint techniques, including pepper spray, might increase the risk of respiratory failure.(144) In one case (see below), an unarmed suspect died after being pepper sprayed, electro-shocked and hog-tied.

Two prisoners (Ray Austin and Frederick Jerome Williams) died after being tasered and strapped into restraint chairs in Gwinnett County Jail, Georgia (see above). In recent years, at least 18 prisoners have died in US detention facilities after being immobilized in restraint chairs, including several who had also been struck with pepper spray and/or electro-shock weapons. The manner of restraint was found to be a primary or contributory cause of death in several cases. Amnesty International has called for a national inquiry into use of restraint chairs in the USA, based on concerns about their safety and the lack of clear regulation or monitoring of their use.(145)

Positional asphyxia was listed as a direct cause of death in four of the cases examined, and use of restraints was noted as a contributory factor in at least six other cases. In some cases, however, restraint was not listed as a causal or contributory factor even though death or loss of consciousness appears to have occurred very shortly after the use of restraints.

Experts have noted that multiple factors may play a role in deaths where restraints have been applied, particularly if other risk factors are involved. Amnesty International is concerned that using combined techniques such as pepper spray, tasers and physical restraint could exacerbate stress levels, leading to cardiac arrhythmias. The organization believes that all the cases require further evaluation. They also underscore the need for clear protocols and training for law enforcement officers on use of restraints and how to avoid excessive or dangerous force when dealing with people with mental health problems and/or acute behavioural disturbance. Case examples include the following:

- Richard Baralla died in May 2002 in Pueblo County, Colorado. According to media accounts, police were called after he was seen acting strangely in the street and threatening to jump into traffic. The autopsy report states that Baralla, who was unarmed, was restrained

"... while exhibiting threatening behaviour. The efforts to restrain him included pepper spray, the application of a Taser stun gun device, the placement of handcuffs behind his back, as well as placement of a hobble on his legs. During the struggle, he became unresponsive....Efforts at resuscitation at the scene and hospital were unsuccessful".

Although the coroner noted that on Baralla's body there were "two sets of electrical injury consistent with Taser application", he found that they were "not of sufficient severity to have contributed to the death."(146) The autopsy also found "there was no evidence of natural disease which could be considered a contributing cause of death" and the toxicology results were "essentially negative". The opinion also noted: "Witness statements did not suggest a significant asphyxial component". The coroner attributed the death to "cardiac arrest occurring during excited delirium necessitating restraint." A wrongful death lawsuit has been filed by Richard Baralla's family, claiming police used excessive force.

The forensic pathologist who reviewed the autopsy for Amnesty International considered that the taser may have been a factor, along with the use of restraints, noting a temporal relationship between the restraint, use of taser and cardiac arrest. She found that the absence of any asphyxial component, if true, may increase the significance of the taser. She also noted that the heart was somewhat enlarged (something not commented on in the autopsy report) – another possible risk factor for adverse reaction to electro-shock. (147)

- Vincent Del'Ostia, aged 31, died in January 2002 in Broward County, Florida. According to the autopsy report, he had a history of psychosis, drug abuse and asthma. Police were called after he had caused a disturbance in the lobby of a motel and found him banging on the motel door. He was "reportedly agitated, incoherent and perspiring". He continued to flail about after being tasered and to strike at officers with his hands and feet while on the ground. Officers rolled him onto his stomach, placing handcuffs on his wrists and ankles, after which an officer "placed his foot on the upper mid-back to keep him from rolling back over. Paramedics arrived within approximately 30 seconds of his being restrained and observed he had stopped breathing and was unresponsive". According to a press article, a motel employee said that when the police arrived, he saw them "kicking and teasing" Del'Ostia and asked them to take it easy on him. Cause of death was determined to be cocaine toxicity.
- Eddie Alvarado (see above) was hobble restrained after being tasered for the fifth time while lying prone on the floor and was subsequently (at the scene) "found in pulmonary arrest".
- Terry Hanna, aged 51, died in Burnaby, Canada, in April 2003 after being shot with a taser. Police said they used the taser on him when he became "aggressive" when they tried to get him out of a police car. He went into cardiac arrest at the scene. The coroner found cause of death to be "acute cocaine intoxication", with coronary artery disease and restraint to be contributory factors. The autopsy report noted that it was "of significance ... that the patient was placed face-down, handcuffed behind his back and hogtied during the restraint process."(148) An inquest in the case was still pending at time of writing.
- Walter C Burks, aged 36, an unarmed, homeless man, died in Minneapolis, Minnesota, in August 2003. According to a report from a community group, based on

a review of police records, Burks had entered a convenience store shirtless and sweating, "looking frightened" and begging for help, saying he was going to die.

(149) After he grabbed an employee on the shoulders, staff and customers took him to the ground and tried to calm him while police were called. When the police arrived he was lying face-down on the floor with his right arm tucked under his torso. When he failed to respond to police commands to get up, he was sprayed in the face with pepper spray. He was handcuffed behind his back and dragged to a police car, still unresponsive. Officers lifted his upper body into a police car, and when he still failed to respond, tasered him twice in the lower back with an M26 in touch-stun mode. He was placed face-down on the back of the police car, handcuffed behind his back with his legs bent backwards (effectively in a hobble restraint position), and reportedly left in that position for some 27 minutes. He was wheeled into hospital in a wheelchair and staff noted him to be "drooling and still unresponsive". He was pronounced dead a short while later. The Hennepin County Medical Examiner reportedly ruled his death to be "sudden, unexpected death associated with cocaine excited delirium", with heart disease and pulmonary emphysema underlying health factors.

- Louis Morris, aged 50, died in Orange County, Florida in October 2003 as police tried to arrest him for suspicious behaviour in a grocery store car park. According to media reports, he died "just minutes after Orange County sheriff's deputies used a Taser stun gun on him". The autopsy found *inter alia* that he had a "history of bizarre, excited, paranoid behaviour prior to sudden arrest" and that he went into cardiac arrest "after being restrained with handcuffs and ankle restraints (hobbled)". There was no evidence of significant external trauma or internal injury. He had a high concentration of cocaine in his system, and the cause of death was listed as "cocaine excited delirium".

The forensic pathologist who reviewed the case for Amnesty International questioned the finding of "cocaine excited delirium" as this is a condition that cannot be diagnosed by autopsy without the history and circumstances being taken into account. She also found that, although he had relatively high levels of cocaine in his system, the distribution of this in the body may have been affected by resuscitation. Although it was impossible to assess the role of the taser on the information provided, she believed it could not be ruled out as a contributory factor, along with the restraint.

- Kevin O'Brien, aged 31, died in Pembroke Pines, Florida, in November 2003. According to his attorney he was mentally disturbed, unarmed and half naked (dressed only in swimming shorts) when arrested for beating on cars. He was tasered multiple times and placed in a hogtie restraint. The autopsy report gave cause of death "positional asphyxia due to 'hogtying' and facedown (prone) restraint in an individual displaying 'excited delirium'". In his report, the Medical Examiner noted the known danger of sudden respiratory arrest caused by this procedure, especially in the case of individuals involved in a violent struggle or strenuous exercise. However, he found "There is no evidence of illegal behaviour by police, as hogtying (hobbling) face down (prone) restraint is not prohibited by Florida's laws. The Medical Examiner concurs with the policy of the Pembroke Pines Police Department that hobble restraint ("hogtying") should not be used". At the time of writing, Amnesty International was seeking information on whether any disciplinary action was taken against the officers involved, after they were cleared of criminal wrongdoing.
- Lawrence Davis, aged 27, died in Phoenix, Arizona, in August 2004. According to press reports, he was involved in a struggle with officers after he jumped onto a parked patrol car, yelling incoherently. He continued to struggle after being hit with taser darts, and police tasered him again in the leg after bringing him to the ground. An officer then used a "chokehold" on him. He was pronounced dead in hospital

about 45 minutes later.

2.7. Taser and pregnancy

One of the cases included in Amnesty International's review was the death of an unborn child in December 2001 after the pregnant mother was struck by an M26 taser. Although the coroner failed to establish a link between the taser and the foetal demise, the mother subsequently received substantial damages in an out-of-court settlement (see Cindy Grippi case under **Lawsuits, 1.7.** above). Two medical experts consulted by the woman's lawyer reportedly found a likely causal connection between the foetal death and the electro-shock.

Taser International warns that police use of tasers is "not advisable" in the case of pregnant women because of the risk of the woman falling. Otherwise, the company maintains that the electrical output from tasers is not harmful to a foetus. However, Amnesty International is concerned by the absence of thorough, independent research into the medical effects of using low-amperage, high voltage taser shocks on pregnant women. One past study has suggested an association between electrical injury from a (low powered) taser and miscarriage after reviewing a case report and the literature on electrical injuries during pregnancy. (150) The case concerned a woman 12 weeks pregnant who was shot with a taser after she refused to submit to a strip search in a Florida jail; she began to miscarry spontaneously seven days later. She was subsequently awarded \$225,000 by a federal jury. (151) A study of the safety of tasers and any associated medical risks should include further research into this topic.

2.8. General concerns about health risks and tasers

The manufacturers of electro-shock equipment claim their products are medically safe. It has been emphasized that the electrical output/current of even the higher powered tasers is far below the threshold for which cardiac ventricular fibrillation (severe disturbance of the heart rhythm during which the heart pumps little or no blood) could occur. A training manual produced by Taser International states that "the Advanced Taser's low electrical amperage and short duration of pulsating current, ensures a non-lethal charge". According to Steve Tuttle, director of government affairs for Taser International: "In 30 years, no death has ever been attributed directly to the Taser gun, typically it's cocaine, pre-existing medical conditions and, in some cases, excited delirium".(152) Company literature suggests that tasers are safe even for people fitted with heart pacemakers.

However, there remains a lack of rigorous, independent research into the medical and safety effects of stun weapons. While there is a limited amount of literature describing clinical experience of earlier tasers, there has been no independent medical literature published to date on the effects of the more powerful Advanced Taser. The only medical studies prior to the marketing of the Advanced Taser were tests on animals commissioned by the company; none of these studies has been peer reviewed.(153)

The earlier published literature includes a review of 16 deaths occurring in Los Angeles between 1983 and 1987, all involving people struck by the original low-powered tasers.(154) In only one case did the authors find the taser may have contributed to the death of a man who already had a severely debilitated heart (in all other cases they found cause of death was clearly due to other factors, mainly drug intoxication). The findings were challenged by forensic pathologist Dr Terrence B. Allen, who expressed concern that certain medical conditions, including drug use and heart disease, may increase the risk that the taser will be lethal and found it could have contributed to nine of the deaths.(155)

Medical experts have continued to question the safety of tasers, particularly on people with underlying heart problems or other conditions. A report in the international medical journal the *Lancet* in September 2001, for example, reviewing the available medical literature, noted that tasers were less likely than guns to cause injury or death and that tests on pigs suggested that

"cardiac myocardial ... stimulation is extremely unlikely in normal use of these devices". (156) However, the authors found that "Further research on what other cardiac effects tasers and related devices would have in people with pacemakers is needed".(157) They concluded that:

"... apart from issues related to cardiac pacemakers mentioned above, there are others that still need to be researched. Injury thresholds need to be studied, as do the effects of tasers on the nerves. Methods of stratifying people at risk of respiratory or cardiac arrest should also be examined, as well as the degree of blood-gas correction needed to minimise this risk."

The UK Defence Scientific Advisory Council Subcommittee on the Medical Implications of Less Lethal Weapons (DOMILL), reporting to the UK Home Office in December 2002, also raised concern about the potential and unknown medical risks from tasers, although a decision was made in January 2003 to pilot the M26 in the UK under limited circumstances (see below). This followed a two-year review of the operational and medical aspects of the various taser models available. The DOMILL experts noted that:

"The body of manufacturers' experimental evidence from biological models of the ... effects of taser on excitable tissues is not substantial, particularly with regard to the M26; the peer-reviewed evidence is even more limited."(158)

While they found, on the available evidence, that the risk of death from primary injuries presented by the M26 taser was low, and very much lower than from conventional firearms, DOMILL observed that:

"The confidence of the opinion of a very low risk from future use of the M26 is not as high as that for the low-power device". This was due in part to the "dearth of information on the potentially adverse electrophysiological effects of the higher current flow in the body, particularly in subjects who have a predisposition to cardiac arrhythmias arising from drug use, pre-existing heart disease or genetic factors".(159) DOMILL also noted:

"There is no experimental evidence that the aforementioned pro-arrhythmic factors increase the susceptibility of the heart to low or high power Tasers specifically, sufficient to cause an arrhythmic event. *Nevertheless, there is sufficient indication from the forensic data and the known electrophysiological characteristics of the heart (and the effects of drugs on this) to express a view that excited, intoxicated individuals or those with pre-existing heart disease could be more prone to adverse effects from the M26 Taser, compared to unimpaired individuals*" (AI emphasis) (paragraph A28 of the DOMILL report).

The DOMILL experts recommended that further research should be undertaken into "cardiac hazards associated with use of the taser on individuals who could be considered to have a greater risk of adverse effects", including "possible hypersusceptibility to taser currents arising from drugs commonly used illegally in the UK, acidosis and pre-existing disease".(160) They conceded, however, that approval for piloting the M26 taser, under the strict terms of the operational guidance issued by the Association of Chief Police Office (ACPO), could be considered pending such further research.

Five UK police forces subsequently introduced trials of the M26 taser under the ACPO guidelines: these allow tasers to be deployed only by trained officers in situations where use of a firearm has been authorized. In the UK most police officers do not carry, and are not trained to use, firearms. Firearms remain in the firearms box and are only issued to officers when authorized for specific circumstances.(161) In September 2004, the UK Home Secretary, David Blunkett, announced that, in light of the outcome of the trials, he would allow chief officers of police forces

across England and Wales to deploy tasers "for use in the same strictly limited circumstances" as set out in the APCO guidelines.(162)

The announcement followed an updated report by DOMILL, which considered data from the UK trials, as well as some further limited research into the effects of electrical pulses and of certain recreational drugs on the heart. While the report concluded, overall, that the risk of life-threatening or serious injuries from the M26 Taser was very low, it left unchanged the earlier caveat set out under paragraph A28 (cited above) that "excited, intoxicated individuals or those with pre-existing heart disease could be more prone to adverse effects from the M26 Taser". The report states:

"DOMILL has reviewed the paragraph in its first statement that discussed pro-arrhythmic factors (paragraph A28) and concludes that it does not require modification on the basis of the current work. The current work provides experimental evidence to support the original statement."(163)

The ACPO operational guidance for taser use in the UK deals with these risk factors by limiting tasers only to authorized situations where trained officers might otherwise use a firearm, and by instructing officers to take them into account when determining the appropriate options.(164) The guidelines also recommend immediate referral to hospital of any tasered suspect who has been fitted with a pacemaker or cardiac device and state that "all arrested persons who have been subjected to discharge of a taser must be examined by a Forensic Medical Examiner as soon as practicable".(165)

A review of the medical literature commissioned by Taser International also raised a number of questions about safety issues and the Advanced Taser.(166) The authors pointed to the lack of clinical medical literature on recent models and absence of conclusive evidence on the effects of the electrical discharge from tasers on humans. They expressed the view that it will be

"difficult to determine absolute safety for any given quantity or nature of electrical energy delivered by these weapons. On one hand, direct discharges into animal heart muscle did not cause ventricular fibrillation, but in earlier (disputed) work, short episodes of cardiac standstill were caused and doubts raised about the effectiveness of pacemakers under Taser stimulation".

They also wrote that:

"elderly subjects and those with pre-existing heart disease are perhaps at an increased risk of cardiac complications and death following exposure to large quantities of electrical energy. Since the elderly and heart patients don't often require to be subdued or controlled with a high level of force, then this is unlikely to pose a common problem" and that

"There is not enough proof either way to determine the risk to those with implantable defibrillators or pacemakers".

Notwithstanding the potential medical risks described, the authors found that the taser had a "lower injury potential for prisoners than current use of unarmed defensive tactics, baton strikes and deployment of police dogs" and that "stun devices are certainly less lethal than firearms and if they are to be deployed in similar circumstances and level of threat, then the outcome will almost certainly be safer".

The authors also noted that at that time no deaths had been linked conclusively to the taser, and

that "All deaths have occurred whilst in custody after Taser electrical delivery rather than during or immediately afterwards". However, as described above, Amnesty International believes the latter claim may not be the case in a number of more recently reported deaths.

An article published in the *Emergency Medical Journal (EMJ)* in 2004 on the implications for the Advanced Taser in British policing, authored independently by the above two experts, covered similar ground and stated that "Until clinical experience with this new device is published, it is only possible to draw general conclusions about the relative safety of the device" and that "It seems that the device is essentially safe on healthy people".(167) The authors suggested management of "tasered" patients in emergency departments, noting *inter alia* that "important points in the history will include known cardiac disease, including implanted pacemaker or defibrillator, pregnancy, drug or alcohol intoxication, bizarre behaviour at the time of arrest, other psychiatric disturbance, or coincidental medical problems". On the risks of electrical injury, the article noted "there is no evidence to date that this form of electrical delivery causes interference with cardiac or neurological function in the 30,000 volunteers or in the reported operational uses". However, the authors refer to "only four reported deaths" in about 40,000 operational uses, in which "no direct association with Taser use was implicated". Amnesty International believes that the more than 70 deaths reported since those materials were reviewed, and factors arising from those cases, provides ground for urgent independent scrutiny, as does data on alleged unwarranted injuries, excessive force and ill-treatment.

The studies cited above underscore Amnesty International's concern about the potential health hazards for serious unwarranted injuries and death that may ensue from widespread deployment of the M26 or X26 taser. While the *EMJ* review gives the opinion that tasers are essentially safe on healthy people, many tasered individuals are far from healthy. Operational surveys by law enforcement agencies in North America show that more than half the number of people confronted by the M26 Advanced Taser were impaired by alcohol, drugs or mental illness -- among the population identified by some medical experts as potentially at increased risk of adverse effects such as heart arrhythmias and "acidosis". As taser use proliferates, the potentially adverse effects on people with heart disease or other underlying conditions could become a significant concern.(168)

It is important to note also that deaths have been linked with other high-voltage stun weapons in the USA. An autopsy found that a foster mother's use of a 70,000 volt stun gun on a malnourished seven-month old infant was a direct cause of his death, with the case report concluding that "stun guns are dangerous weapons".(169) An autopsy in the case of a 54-year-old man killed during a botched robbery in August 2002 ascribed cause of death as "Electrocution due to a stun gun"; the autopsy found "Factors contributing to his death are Hypertensive Cardiovascular Disease, Coronary Atherosclerosis, and Cirrhosis of the Liver."(170)

An Ultron 11 stun gun, discharging 45,000 volts at 6 milliamps, was found to be a contributory factor in the death of Virginia prisoner Larry Frazier. Frazier, a diabetic, died in July 2000 after lapsing into a coma in the prison infirmary while suffering from hypoglycaemic shock. Guards in the infirmary applied the stun gun to him three times after he allegedly became "combative" during a medical examination. The autopsy report gave cause of death as "cardiac arrhythmia due to stress while being restrained following stunning with Ultron 11 device". The coroner did not find the electro-shock from the Ultron 11 caused death directly through ventricular fibrillation, noting that "it was applied on the flank, where the output would not interfere with the heart's electrical activity" and that, according to witnesses, "the decedent continued to thrash about and shout for several minutes after the device was used". Instead, she concluded,

"It seems most likely that severe physiologic stress, initiated by hypoglycaemia and exacerbated by decedent's prolonged agitation with stunning, was sufficient to induce a

lethal cardiac arrhythmia", adding that "Individuals with coronary artery disease are at increased risk for such an event" (Frazier had severe atherosclerosis).(171)

3 . CONCLUSIONS AND RECOMMENDATIONS

Tasers are widely promoted by US police agencies as being a useful force tool, safer than many other weapons or techniques used to restrain dangerous, aggressive and focused individuals. In practice, however, they are commonly used to subdue individuals who do not pose a serious and immediate threat to the lives or safety of others. In many reported instances police actions using tasers appear to have breached international standards on the use of force as well as the prohibition against torture or other cruel, inhuman or degrading treatment or punishment.

Amnesty International considers that electro-shock weapons are inherently open to abuse as they can inflict severe pain at the push of a button without leaving substantial marks, and can further be used to inflict repeated shocks. While the capacity for abuse exists in whichever mode tasers are deployed, Amnesty International believes that tasers in "touch" stun gun mode are particularly open to abuse, as they are designed for "pain compliance" and tend to be used against individuals who are already in custody or under police control, often with multiple shocks.

Amnesty International is further concerned that, despite being widely deployed, there has been no rigorous, independent and impartial study into the use and effects of tasers. Medical opinion has continued to raise concern about potential health risks from tasers, particularly in the case of people suffering from heart disease, or under the influence of certain drugs. Amnesty International's concerns are heightened by a growing number of deaths of individuals struck by police tasers. The organization believes that the taser cannot be ruled out as a possible contributory factor in some deaths. Concerns about the risks associated with tasers increase as they become more widely deployed.

Many police agencies claim that tasers have the potential to save lives or avoid serious injury in cases where police officers might otherwise resort to firearms or other forms of deadly force. It is self-evident that tasers are less-lethal or injurious than firearms. Amnesty acknowledges that there may be situations where tasers can effectively be used as "stand-off", defensive weapons as an alternative to firearms in order to save lives. This appears to be the aim of the limited introduction of tasers to UK police who operate under strict rules. However, it appears that in practice tasers are rarely used as an alternative to firearms in the USA and most departments place them at a relatively low level on the "force scale". Amnesty International further notes that measures such as stricter controls and training on the use of force and firearms are likely to be more effective overall in reducing unnecessary deaths or injuries.

Based on these considerations, Amnesty International makes the following recommendations to federal, state and local authorities:

1. Suspend all transfers and use of tasers and other electro-shock weapons pending a rigorous, independent and impartial inquiry into their use and effects. Such an inquiry should be carried out by acknowledged medical, scientific, legal and law enforcement experts who are independent of commercial and political interests in promoting such equipment. They should rigorously assess their medical and other effects in terms of international human rights standards regulating the treatment of prisoners and use of force; the inquiry should include the systematic examination of all known cases of deaths and injury involving the use of such weapons and also consider the mental impact of being subjected to electro-shock. The study should recommend strict rules, safeguards and oversight procedures to prevent misuse of any types of electro-shock equipment that may be viewed as having a

legitimate use in law enforcement. A report of the findings of such an inquiry should be made public promptly after completion of the study.

2. International standards recognize that situations will arise in which police officers will have to use force. However, these standards, specifically the (UN) Code of Conduct for Law Enforcement Officials and the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, set specific guidelines on when, how and the extent to which force can legitimately be used. All law enforcement agencies should ensure that officers are trained to use force strictly in accordance with these standards. (172)

3. Federal, state and local authorities should ensure that use of force training programs for law enforcement officials include international standards on human rights, particularly the prohibition against torture and cruel, inhuman or degrading treatment or punishment.

4. All allegations of human rights violations and other police misconduct should be fully and impartially investigated. All officers responsible for abuses should be adequately disciplined and, where appropriate, prosecuted.

Where law enforcement agencies refuse to suspend their use of tasers, pending the outcome of the above-mentioned inquiry, Amnesty International recommends that:

5. departments using tasers should strictly limit their use to situations where the alternative would be use of deadly force. Examples would include: armed stand-offs, instances in which a police officer faces a life-threatening attack or injury, or threat of attack with a deadly weapon, or where the target presents an immediate threat of death or serious injury to him/herself or others. In such circumstances, tasers should be used only where less extreme measures are ineffective or without a promise of achieving the intended result.

6. Unarmed suspects should not be shot with a taser for arguing or talking back, being discourteous, refusing to obey an order, resisting arrest or fleeing a minor crime scene, unless they pose an immediate threat of death or serious injury that cannot be controlled through less extreme measures.

7. Operational rules and use of force training should include a prohibition against using tasers on the following groups, except as a last resort to avoid deadly force when no alternatives other than firearms are available: pregnant women; the elderly; children; emotionally disturbed persons or people who are mentally or physically disabled; people in vulnerable positions where there is a risk of serious secondary injury (e.g. in dangerously elevated positions, or near flammable substances); people under the influence of drugs.

8. Repeated shocks should be avoided unless absolutely necessary to avoid serious injury or death.

9. Departments should introduce guidelines which prohibit the application of prolonged shocks beyond the five-second discharge cycle.

10. Tasers should only be used in stun gun mode as a back-up to dart-firing tasers and only when no other options are available to an officer and there is an immediate threat of death or serious injury to the officer, the suspect or another person. The stun gun function should never be used to force a person to comply with an order given by an officer where there is no immediate threat to the life or safety of the officer or others.

11. Whenever an individual has been shot with a taser, police officers or custody staff should be required to call paramedics or other medical professionals to administer treatment. It is advisable to take tasered subjects to hospital to have the barbs removed and to monitor for other adverse effects.

12. Federal, state and local agencies should ensure strict reporting by the departments concerned on all use or display of tasers, with regular monitoring and data made public. In particular:

- Departments should download data recorded by officers' tasers after every incident in which they are used. A summary of this data should be included in all use of force reports.
- Each display, "sparking" or shock administered by a taser should be reported in use of force reports, as well as whether the taser was used in dart-firing or stun gun mode and the reasons why a taser was used. The number of trigger-pulls and duration of the shock should be reported in each instance. The age, race and gender of each person against whom a taser is deployed should also be reported.
- Prisons and other institutional facilities should install remote monitoring equipment to record taser usage automatically as it occurs.
- Each department should provide a detailed break-down of its taser use in regular, public reports.

Recommendations on private sale or use of tasers

13. Tasers and electro-shock weapons should not be sold to members of the public whose use of the device cannot be monitored, constrained or accounted for.

14. In jurisdictions where officials refuse to ban their sale, all tasers and electro-shock weapons sold to the public should be registered with local officials.

15. The same restrictions on firearms purchased by convicted felons or individuals convicted for domestic violence, should apply to electro-shock weapons sales.

16. The sale of tasers should be regulated as firearms, even though they use compressed gas rather than gunpowder. Federal, state and local officials should set strict guidelines to curtail abuse of electro-shock weapons available to the public, with strict penalties imposed for unlawful use of such weapons.

Additional recommendations:

17. Mentally ill or disturbed individuals should receive appropriate treatment and alternatives to force in line with best practice. Where officers have reason to believe that a disturbed individual may be acting in a violent or threatening manner as a result of mental illness, efforts should be made to involve mental health specialists in dealing with the disturbed person. Policing methods based on force should only be used as a last resort.

18. Dangerous restraint holds such as hogtying and use of carotid neckholds or chokeholds should be banned.

19. There should be strict limitations and guidelines on the circumstances in which pepper spray should be used, with clear monitoring procedures.

4. APPENDICES

4.1. Appendix 1: Taser deaths in USA and Canada June 2001 - 4 Oct 2004

***** To view / print this table, please use the View PDF option *****

4.2. Appendix 2: Selected International Instruments

*Articles of the International Covenant on Civil and Political Rights
(ratified by the US Government on 8 June 1992)*

Article 6

1. Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life.

Article 7

No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation.

Article 10

1. All persons deprived of their liberty shall be treated with humanity and with respect for the inherent dignity of the human person.

The United Nations (UN) Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (ratified by the US government in October 1994)

This provides, among other things, that education and information regarding the prohibition against torture or other cruel, inhuman or degrading treatment or punishment shall be fully included in the training of law enforcement personnel and others (Articles 10 and 16). It also provides that each State Party shall ensure there is a prompt and impartial investigation whenever there is reasonable ground to believe that an act of torture or other cruel, inhuman or degrading treatment has been committed in any territory under its jurisdiction (Articles 12 and 16).

Body of Principles for the Protection of All Persons under Any Form of Detention or Imprisonment.

Adopted by General Assembly resolution 43/173 of 9 December 1988

Principle 1

All persons under any form of detention or imprisonment shall be treated in a humane manner and with respect for the inherent dignity of the human person.

Principle 6

No person under any form of detention or imprisonment shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. No circumstance whatever may be invoked as a justification for torture or other cruel, inhuman or degrading treatment or punishment.

Principle 34

Whenever the death or disappearance of a detained or imprisoned person occurs during his detention or imprisonment, an inquiry into the cause of death or disappearance shall be held by a judicial or other authority, either on its own motion or at the instance of a member of the family of such a person or any person who has knowledge of the case. When circumstances so warrant, such an inquiry shall be held on the same procedural basis whenever the death or disappearance occurs shortly after the termination of the detention or imprisonment. The findings of such inquiry or a report thereon shall be made available upon request, unless doing so would jeopardize an ongoing criminal investigation.

Standards on police codes of conduct and use of force

Relevant articles under the UN Code of Conduct for Law Enforcement Officials, adopted by the UN General Assembly in 1979:

Article 2: "In the performance of their duty, law enforcement officials shall respect and protect

human dignity and maintain and uphold the human rights of all persons."

Article 3: "Law enforcement officials may use force only when strictly necessary and to the extent required for the performance of their duty."

More detailed guidelines are set out in the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, adopted by the Eighth UN Congress on the Prevention of Crime and Treatment of Offenders on 7 September 1990. These provide in part:

4. "Law enforcement officials, in carrying out their duty, shall, as far as possible, apply non-violent means before resorting to the use of force and firearms. They may use force and firearms only if other means remain ineffective or without any promise of achieving the intended result."

5. "Whenever use of force and firearms is unavoidable, law enforcement officials shall:
a. Exercise restraint in such use and act in proportion to the seriousness of the offence and the legitimate objective to be achieved;
b. Minimize damage and injury and respect and preserve human life;
c. Ensure that assistance and medical aid are rendered to any injured or affected persons at the earliest possible moment";

9. "Law enforcement officials shall not use firearms against persons except in self-defence or 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 or resisting their authority, or to prevent his or her escape, and only when less extreme means are insufficient to achieve these objectives. In any event, intentional lethal use of firearms may only be made when strictly unavoidable in order to protect life."

10. "In the circumstances provided for under principle 9, law enforcement officials shall identify themselves as such and give a clear warning of their intent to use firearms, with sufficient time for the warning to be observed, unless to do so would unduly place the law enforcement officials at risk or would create a risk of death or serious harm to others, or would be clearly inappropriate or pointless in the circumstances of the incident."

The Basic Principles also provide that law enforcement officials shall, among other things:

11(b) "Ensure that firearms are used only in appropriate circumstances and in a manner likely to decrease the risk of unnecessary harm."

Article 6 of the Basic Principles provides that officials shall promptly report any use of force or firearms that results in injury or death. Article 7 provides that governments shall ensure that "arbitrary or abusive use of force and firearms by law enforcement officials is punished as a criminal offence under their law."

Governments were asked to consider incorporating the provisions of the Code of Conduct for Law Enforcement Officials into national legislation or guidelines for law enforcement agencies.

The Eighth UN Crime Congress invited member states to bring the Basic Principles to the attention of law enforcement officials and other members of the executive branch of government, judges, lawyers, the legislature and the public and to inform the UN Secretary-General every five years of the progress achieved in their implementation.

4.3. Appendix 3: Distribution and deployment of tasers by Region and Country

According to a list of distributors published by Taser International in April 2000 and July 2004,

there were 43 distributors covering a total of 50 countries worldwide (see table below). It is not known whether Taser is currently exporting to all these countries. However in 1997 the company was quoted as claiming that they were exporting to more than 35 countries. Electronic Telegraph 10/6/97: ...Quoted in the October 1996 issue of Security Products, Smith claims to export to more than 35 countries.(173)

Using reports from companies, distributor and media indicate that the various Taser models have been tested, trialled, deployed or are in use by police forces in at least 28 countries.

Africa

Country	Deployment / Trials
Algeria	"
South Africa	Police Task Force Parliamentary Committee South African Police Services National Task Force (SA SWAT) Hostage Negotiation (174)

Asia Pacific

Country	Deployment/Trials
Australia	New South Wales Police Deployed (175)
Malaysia	Malaysia Police ³
New Zealand	"
Philippines	"
Singapore	"
South Korea	"used" (176) Korean Airlines (177) Incheon Provincial Police Agency Ministry of National Defense 9965 Unit ROK Army ³
Thailand	"used" ⁴

Europe

Country	Deployment/Trials
Andorra	"
Austria	"
Belgium	Belgian Federal Police
Bulgaria	"
Canary Islands	Canary Island Authority
Croatia	"
	"

Czech Republic	
Denmark	
Finland	Finnish Police Technical Center Finland Army Units Testing (178)
France	French Police Dept. Firearm Headquarters/DGA French-German Research Institute Ministry of the Interior / Paris Security Republican Company / Paris Public Security Headquarters Marine Commando Headquarters Air Army Headquarters
Germany	German Army Special Forces German Army for Peacekeepers in Kosovo German Gov't Federal Air Marshalls SEK North Rhine Westphalia** SEK Berlin SEK Niedersachsen SEK Sachsen SEK Baden Wuerttemberg SEK Thueringen SEK Rheinland Pfalz SEK Hessen SEK Bavaria South (Munich SWAT team) GSG 9 (German Federal Anti Terrorist unit) "used"
Greece	Greek Special Forces of the Greek Air Staff ³
Ireland	
Latvia	
Lithuania	
Luxembourg	Luxembourg SWAT* *Unites Speciales de Police Grand-Ducale de Luxembourg
Netherlands	
Norway	
Poland	Deployed?
Romania	
Slovenia	
Spain	Garafia

	Espartinas UEI Guardia Civil - Sp. - Castellon Alcala de Xivert - Sp. - Kanarske ostr. Canary Island Authority
Sweden	Tests
Switzerland	Trialled and deployed (179)
Turkey	Turkish Special Forces Trialled. (180)
UK	Trialled and deployed

Middle East

Country	Deployment/Trials
Bahrain	GHQ Bahrain Defence Force
Iran	.
Iraq	Deployed with US Military Forces
Israel	Israeli Air Force Israel Police
Jordan	.
Kuwait	Special Forces of MOI
Lebanon	.
Saudi Arabia	.
United Arab Emirates	Abu-Dhabi Police Dubai Police

North America

Country	Deployment/ Trials
Canada	Trialled and deployed
Mexico	Mexican Army
United States of America	Trialled and deployed

South America & Caribbean

Country	Deployment/Trials
Argentina	Argentine Federal Police Gendameria Argentine Coast Guard Pan Air Force Argentine Presidential Security Justice Ministry – Jails
Brazil	.

Chile	
Paraguay	
Peru	
Trinidad & Tobago	Trinidad Police
US Virgin Islands	
Venezuela	

- (1) Idsnews.com, 20 February 2004.
- (2) See, for example, Amnesty International, *The Pain Merchants: Security equipment and its use in torture and other ill-treatment* (AI Index: ACT 40/008/2003)
- (3) Principles 2 and 3 of the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Havana, 1990 (U.N.Doc. A/CONF.144/28/Rev.1 at 112 (1990)).
- (4) Many US police departments use a "use of force continuum" setting out the appropriate force options in response to each resistance level, on a rising scale from "officer's presence" to use of deadly force.
- (5) It is an acronym of Thomas A. Swift's Electrical Rifle, based on the child's novel *Tom Swift and his Electric Rifle* by Victor Appleton, published in 1911.
- (6) Known by the alternative chemical name of Phencyclidine and a range of slang terms such as "angel dust".
- (7) The original taser operated on only 5 watts and was followed by Air Taser on 7 watts. The M18-M26 series of tasers, introduced by Taser International in 1999 and 2000, operate on 18-26 watts of electrical output.
- (8) According to company literature, the X26 is 5% more incapacitating than the M26 while using less energy, due to its advanced Shaped Pulse Technology which sends the hardest, high voltage, short duration, pulsed energy for the first two seconds, when the darts penetrate clothing, skin or other barriers, with a reduced rate for the rest of the hit.
- (9) Taser International literature.
- (10) According to testimony at the inquest into the death of William Lomax on 25 June 2004, the Las Vegas Metropolitan Police Department stopped having officers "taze" each other during training after complaints from officers about having to take a "hit" and complaints about injuries from falling.
- (11) Taser International, *Certified Lesson Plan, Version 8.0, Advanced Taser M26*.
- (12) Neck and arm
- (13) Outer thigh
- (14) From transcript of inquest proceedings in case of William Lomax, Las Vegas, Nevada, 25 June 2004 (see more on this case under Deaths in Custody, below).

(15) In Michigan the law was changed in December 2002 to legalize tasers for law enforcement use only, since when more than 100 police agencies in the state have begun using them. Massachusetts became the most recent state to pass similar legislation in July 2004, leaving New Jersey as the only state still banning their use in all circumstances.

(16) Taser International announced in June 2004 that it had won a \$1.8 million contract to provide stun weapons to US military personnel, following a previous smaller order by the U.S. Army for stun guns and tasers for use in Iraq. (AP, 30 June 2004).

(17) Aviation Daily, 2 August 2002 (available at:www.taser.com/aviation/aviation02.html)

(18) "US issuing troops more 'non-lethal' weaponry", Chicago Tribune, 11 December 2003, citing a report from retired Lt Col Wesley Barbour that members of the 800th Brigade used lethal force several times to quell detainee uprisings but that such rebellions ended after police "demonstrated" the power of the taser. A report by Major-General Antonio Taguba in December 2003 found members of the 800th Brigade were among US forces which had engaged in "sadistic, blatant and wanton" abuse of detainees in Abu Ghraib Prison in 2003
[http://news/findlaw.com/hdocs/Iraq/tagubarpt/html](http://news.findlaw.com/hdocs/Iraq/tagubarpt/html).

(19) See Appendix 2 for a list of countries reported to have deployed, tested or trialled tasers, or have taser distributors based there. Amnesty International obtained the information from various sources, including Taser International's website listing distributors.

(20) Tasers are barred for citizen use in seven US states: Massachusetts, Rhode Island, New York, New Jersey, Wisconsin, Michigan and Hawaii, and in certain cities and counties.

(21) Because tasers use compressed air or gas instead of gunpowder to propel the darts, tasers are not considered as firearms and do not fall under the regulation of the Federal Bureau of Alcohol, Tobacco or Firearms.

(22) Taser International press release, 15 September 2004. The release states that the extended discharge is in order to allow the user "sufficient time to safely get away from a potentially life-threatening situation". The company reports that private citizens who purchase the device will receive a 40 minute training video and a coupon redeemable for a one-hour in-home training course from a local law enforcement officer trained in taser use.

(23) Principle 9 of the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials

(24) "Taser International Strongly Refutes New York Times Article", statement from Taser International July 2004, following a critical article in the New York Times. The statement cites company estimates that less than one in ten police reports on such incidents are received and that "Accordingly, we conservatively estimate that there are over 5,000 such incidents where the TASER has saved a life or averted serious bodily injury".

(25) From a Taser International lesson plan on the M26 Advanced Taser.

(26) City of Phoenix Police Department news release, 6 February 2004

(27) www.taser.com/pdfs/m26brochure.pdf

(28) "As Shocks Replace Police Bullets, Deaths Drop but Questions Arise", New York Times 7 March 2004 – no-one was shot and killed in Seattle for the first time in 15 years. In Miami there

were no police shootings, fatal or otherwise, in 2003, for the first time in 14 years.

(29) Indeed, in a letter to the Miami City Attorney, dated 13 March 2003, the Justice Department expressed concern that the Miami Police Department's policy on tasers was insufficiently stringent, noting that it failed to define what constituted a reasonable use of force or to place tasers on a "use of force continuum". The Justice Department recommended the introduction of a force continuum as a valuable tool which "emphasizes that an officer's presence, verbal commands and use of soft hands techniques (using hands to escort rather than control) can often be used as an alternative to other, more significant, uses of force."

(30) There have been many reported instances of abusive use of pepper spray and chemical sprays by US law enforcement officials against people in police custody, in prisons and in juvenile detention facilities, including their use as a front line of control in the case of individuals who fail to comply immediately with orders. Complaints have been documented in lawsuits, by civil liberties and police monitoring bodies, and in Amnesty International reports.

(31) Justice Department press release on the MPD, dated June 2001: "In the past two years ... MPD has achieved a significant reduction in the rate at which it uses deadly force and the rate at which its canines bite suspects". Officer-involved-shootings fell from 16 fatalities in 1990 to four in 1999 and two in 2000. The MPD did not have tasers at that time.

(32) In the LAPD, for example, police shootings and total use-of-force incidents decreased significantly between 1990 and 1999, during a period in which an independent monitor noted that there were "better investigations, better oversight, greater scrutiny on the use of force" than ever before (former Inspector General Jeff Eglash, quoted in L.A. Weekly, September 2002). The LASD saw police shootings fall by 70% from 1991 to 2000, during a period in which the number of arrests remained constant. The Special Monitor appointed to oversee the department reported in 2003 that that "excessive force has been substantially curbed", and that better reporting and monitoring had contributed to this trend. Civilian Oversight of the Police in the United States, Merrick Bobb, September 2002.

(33) There were eight police shootings in San Jose in 1999; five in 2000; four in 2001; zero in 2002; four in 2003 and six in the first nine months of 2004. (1999-2003 statistics from IPA 2003 Report.)

(34) "Police to review use of stun gun", Mercury News, 29 September 2004

(35) The mid-range on the force continuum is generally where pepper or chemical sprays are placed. Taser International told Amnesty International that 86% of US agencies placed tasers at this level.

(36) Several police departments have recently changed their policies to raise the entry level for taser use from "passive" to "active" resistance following controversial cases. These include 11 police agencies in Orange County, Florida. Other departments reportedly continue to authorize such use, either in a written policy or in practice (they include the Honolulu Police Department, Hawaii; the Portland Police Department, Oregon, which is reported to allow taser use against people who are non-compliant but not a physical threat; several agencies in Colorado are also reported, in practice, to have used tasers against people passively resisting arrest, or refusing to obey a police order.)

(37) Examples include the Mesa Police Department, Arizona; the Chula Vista Police Department, California and the Putman County Sheriff's Office, Florida.

(38) Telephone interview, March 2004

(39) "Law enforcement officials may use force only when strictly necessary and to the extent required for the performance of their duty" (Article 2, UN Code of Conduct for Law Enforcement Officials); "Law enforcement officials, in carrying out their duty, shall, as far as possible, use non-violent means before resorting to the use of force and firearms.." and should "exercise restraint in such use and act in proportion to the seriousness of the offence and the legitimate objective to be pursued" (Articles 5 and 5(a) of the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials.

(40) General Comment 20, 10 April 1992

(41) Sources include: Miami Herald 14 April 2002; Orlando Sentinel 4 August 2002; Miramar Police Department; WJXT News4-Jax.com, 8 January 2004; Putnam County Sheriff's Office, March 2004.

(42) Report by J.D. Gallop, Florida Today, June 2004

(43) Source: from statistics in an Orange County Sheriff's Department document dated October 15, 2003, under heading Orange County Use of Force Successes. The taser was most widely used in cases of "Active Physical Resistance", a level below "Aggressive Physical Resistance".

(44) Police Tasers set to stun, by David Migoya, Denver Post 4 May 2004; the study was based on a review of court and police records.

(45) Concerns outlined in a 10-page letter dated 26 February 2004 to Gerry Whitman, Chief of Denver Police Department, from Mark Silverstein, Legal Director, ACLU of Colorado

(46) Series of articles by Nick Budnick, appearing in the Willamette Week, Portland Oregon, on 4, 11 and 18 February 2004

(47) Widely reported incidents, often called "suicide by cop", in which deranged individuals brandishing weapons allegedly goad officers into shooting them.

(48) Information attributed to Training Captain Mike Crebs, reported in Oregonlive.com, 24 May 2004.

(49) Chandler Police Department: Advanced Taser Use of Force, 2003 Annual Report, published February 2004.

(50) Tasers were added to every Chandler officer's arsenal in May 2003

(51) A 15-member Citizen Review Panel ruled unanimously in January 2004 that use of the taser in this case, which occurred in September 2003, was within policy and did not constitute excessive force.

(52) SDP Special Reports: The M26 Taser, Two Years' Experience, March 2003; SPD Taser Use 2001-2003 Key Findings, May 2004.

(53) SPD Special Report: The M26 Taser, Two Years' Experience, March 2003

(54) According to the OPARB report, while one officer stated he had used his taser four times on the complainant, the data retrieval device on the other officer's taser had been inadvertently "corrupted" and it was unclear how many times he had pulled the trigger (OPARB 2003 Year End Report, April 30, 2004).

(55) Information from the Seattle Times, 21 September 2004

(56) Advanced Taser M26 Field Report Analysis, Taser International, November 2002. Amnesty International has also received a copy of a later analysis prepared for Taser International of 2,690 taser field uses, dated May 2003, in which 83% of cases the suspect was unarmed, with the remaining percentages broadly similar to the figures given in the November 2002 report.

(57) Amnesty International recognizes that this breakdown may not provide a complete picture of which incidents involved some form of violent or threatening behaviour, as these were the initial call-out categories.

(58) Such standards include the UN Convention on the Rights of the Child, signed but not ratified by the USA. As a signatory to the treaty, the US is bound not to do anything to undermine the object and purpose of the treaty. The treaty further enshrines the right of those under 18 to protection "from all forms of physical or mental violence, injury or abuse ...". A child is defined under international standards as a person under 18.

(59) Concerns arise over dangers youths face being zapped by San Jose police; "Chief defends officers' practices", Mercury News, 16 September 2004

(60) Analysis produced for Taser International, dated May 2003, cited at note 47, above.

(61) As noted earlier, Taser International has estimated that it receives only about a tenth of all reports of taser use from police. An article in the Arizona Daily Star on 26 May 2004 reported that ten children under 10, nine aged from one to six years, had been hit by tasers, some inadvertently. The information was reportedly based on a print-out received from Taser International. Taser International told Amnesty International that the statistics cited were inaccurate and that the data had been misinterpreted (five uses, it said, were of animals). Amnesty International has not seen the print-out in question and at the time of writing was seeking further clarification from Taser International.

(62) Associated Press, 1 June 2004

(63) Houston Chronicle 26 September 2002

(64) St Petersburg Times, 11 June 2003

(65) As described above (1.2), the electrical charge can continue beyond the default five seconds, for as long as the officer's finger remains depressed on the trigger.

(66) According to a report in the Denver Post on 20 September 2004, a third of the 112 people tasered by Pueblo police since January 2003 were handcuffed.

(67) Police incident report

(68) See United States of America: Cruelty in Control? The stun belt and other electro-shock equipment in law enforcement (AI Index: AMR 51/054/1999)

(69) Advanced Taser M26 Field Report Analysis, op cit.

(70) Seattle Police Department Taser Use 2001-2003, Key Findings, May 2004

(71) The Oklahoman, 6 July 2004

(72) Willamette Weekly, op. cit.

(73) Taser International Certified Lesson Plan, op cit.

(74) The cartridge also releases confetti-like identification tags when fired (see Safeguards below).

(75) Letter from Mark Silverstein, Legal Director, ACLU of Colorado, to Denver Mayor's Task Force on police, 15 March 2004.

(76) Willamette Week report, op cit

(77) See, for example, Amnesty International reports USA: Cruelty in Control? The Stun Belt and other Electro-shock equipment in Law Enforcement (AI Index AMR 51/54/99); USA: Cruel and inhuman treatment in Virginia supermaximum security prisons (AMR 51/065/2001); USA: A briefing for the UN Committee against Torture (AMR 51/56/00); Combating Torture: a manual for action (Amnesty International Publications 2003, pp 35-36).

(78) US Department of Justice, Civil Rights Division, letter to Maricopa County Board of Supervisors, 25 March 1996.

(79) See Amnesty International Report USA: Ill-treatment of inmates in Maricopa County Jails, Arizona (AMR 51/51/97).

(80) Report of Corrections Consultant on the Use of Force in the Maricopa County Jails, Phoenix, Arizona, prepared by George E Sullivan, Salem, Oregon May 14, 1997.

(81) United States of America v County of Maricopa et al, US District Court for the District of Arizona, Proposed Order 18 November 1997.

(82) Autopsy report in case of Lawrence Frazier, see below, under 2.7.

(83) The City of Mesa authorities informed Amnesty International that, following the decision not to prosecute the officer, the case would be reviewed by a Mesa Police Department Board of Inquiry to review the incident for possible violations of its policies and procedures.

(84) Information provided through conversations with Cindy Grippi's lawyer. Amnesty International was unable to obtain the transcripts of the expert testimony.

(85) Report to Amnesty International by Sidsel Rogde MD, PhD, Professor of Forensic Medicine, University of Oslo, Norway.

(86) City Pays Excessive Force Claim, OregonLive.com 23 April 2004

(87) Aldred was also one of five officers involved in the arrest and death of Luis Torres, a migrant worker from Mexico, in January 2002. A medical examiner ruled Torres' death a homicide during a police struggle, caused by compression of his airways. However, Aldred and others were cleared of using excessive force in the case.

(88) Source: attorney for plaintiff; Houston Chronicle, 27 October 2003

(89) There remains some discrepancy between the injuries and the taser strikes recorded, unless the probes jumped around as they were fired into her body. However, it is clear from the record

that the trigger was pulled (in dart and stun mode) at least 12 times.

(90) Sources: The Vancouver Columbian, 26 April 2004, citing police reports; Oregonian, 9, 23 April 2004.

(91) A term of abuse for gay males

(92) email from Rick Smith, Taser International, 7 October 2004

(93) There is no maximum cycle and the duration of the charge could last until the battery is depleted, which Amnesty International has been told could, in theory, be just over four minutes, although no such instance has been recorded.

(94) Testimony of a Las Vegas Metropolitan Police Department taser training officer at the inquest of William Lomax, 25 June 2004 (see under Deaths in Custody, below).

(95) Amnesty International has seen several cases in which officers' reports on the number of trigger pulls are inconsistent or contradict witness statements. In one case, the record could not be verified as the data on the officer's unit had become "corrupted"; a police review board quotes an instructor as stating that such data corruption is "not unusual" due to inability to insulate the data retrieval instrument from the high voltage components of the device (Seattle Office of Professional Accountability Review Board Annual Report 2003). This is listed as a potential occurrence in Taser International's website which states that "there is no correction available for this problem" but that "new data will be recorded normally". In another case, the various clocks involved failed to record the time sequences accurately due to inaccurate settings (see ref to Glenn Leyba death in custody case, Glendale, Colorado, below).

(96) See note 24, above

(97) See Bruce Bellemore case, under 1.7 above. Bellemore's attorney told AI there appeared to be no specific warnings of the dangers of firing tasers at people in elevated positions in the department's policies. The officer was cleared of criminal wrongdoing. The officer's actions were under police administrative review at the time of writing.

(98) Certified Lesson Plan, Version 8 (op cit). The company maintains that the electrical output of tasers is not harmful to a fetus, but that secondary injuries from falling are a possible issue for pregnant women. The question of whether electro-shocks from tasers could trigger miscarriage remains a matter of some dispute (see 2.9, below).

(99) Cases of Cindy Grippi, and Romona Madson (see above, under Lawsuits). Amnesty International was unable to obtain information on whether the force used in the Cindy Grippi case was within police policy, as the results of police internal investigations are "privileged information" and not available to the public under California law. Amnesty International was seeking more information on the recent Madson case (Illinois) at the time of writing.

(100) "City's use of taser similar to others", The Charlotte Observer, 31 October 2004

(101) Reported in the Denver Post, 20 September 2004.

(102) Associated Press, 12 October 2004, "Police baffled by cause of fatal explosion".

(103) Robert C Trough was "sprayed repeatedly with pepper spray and zapped with a Taser that set his hair on fire" before he was fatally shot after reportedly taking an officer's gun (Washington Post, 18 August 2004).

(104) Orlando Sentinel, 29 April 2004

(105) "Taser Works So Its Use Increases", Orlando Sentinel, 29 July 2002 (based on data obtained from the Orange County Sheriff's Office).

(106) www.taser.com/pdfs/m26brochure.pdf. The brochure states: "Deputy injuries in Orange County, FL dropped by 80% from 1999 to 2002 despite a 72% increase in use of force over the same period – from 410 force incidents in 1999 to an annual rate of 708 incidents in 2002".

(107) "Police Taser Use Grows, Controversy Continues, Local 6 News (local6.com), 4 May 2004

(108) The data lists type of force used. The total is thus higher than the total number of incidents, as more than one type of force was used in some incidents.

(109) There are no official national figures for the number of deaths in custody involving taser use. The list of cases comes mainly from news reports, backed up where possible by other data.

(110) In many of the more recent cases, autopsy reports were not yet available. In some other cases Amnesty International's requests for autopsy reports were denied as state law prevented them from being made publicly available. Other information includes media reports, statements issued by coroners' offices, paramedic reports, lawsuits and information from lawyers acting for the deceased's family. In some cases Amnesty International sought additional information, including copies of police incident reports, from the police agencies involved; however, this latter information was often not made available due to ongoing investigations or pending litigation. In three cases, Amnesty International's sole source was information provided in a list of deaths published by Taser International on 5 April 2004, in response to a CBS Evening News report on stun fatalities broadcast on the same date.

(111) In many cases the deceased's race was not reported.

(112) A condition known as "excited delirium", sometimes also referred to as "in-custody death syndrome", has been attributed by some US coroners to a number of deaths in custody, especially in the case of persons on drugs or suffering from psychosis. It is a combination of signs and symptoms, including dangerously elevated body temperature levels, leading to sudden death. The theory relating to such a syndrome is controversial and disputed by some medical experts.

(113) See, for example, reference below (2.7) to the UK Defence Scientific Advisory Council subcommittee on non-lethal weapons' recommendation that further research should be undertaken into cardiac hazards associated with use of the taser on certain at-risk subjects, including "possible hyper-susceptibility to taser currents arising from drugs commonly used illegally in the UK, acidosis and pre-existing disease".

(114) Report to Amnesty International from Sidsel Rogde MD, PhD, Professor of Forensic Medicine, University of Oslo, June 2004. Cases where Dr Rogde found the taser to be a possible contributory factor were: Eddie Alvarado, Richard Baralla, James Borden, Dennis Hammond, Glenn Leyba, Gordon Randall Jones and Michael Sharp Johnson. In some of the 16 cases reviewed there was insufficient information to assess the possible or likely role of the taser. Dr Rogde also reviewed autopsies in two cases of individuals who died from other stun weapons, cited later in this report (Garcia and Frazier); in those cases she concurred with coroners' findings that the stun weapons played a role in the deaths.

(115) Star-Telegram, 13 September 2004, reporting on case of Samuel Wakefield.

(116) There were reports of multiple taser discharges in 41 of the 73 cases reviewed. However, the true number is likely to be higher as in 28 cases the number of discharges was not reported in the information available.

(117) Certification Lesson Plan, op cit.

(118) Advanced Taser M26, Field Report Analysis, November 2002 (Taser International)
According to the data, one five-second discharge or less was used in 68% of incidents, with 32% of incidents requiring more than one cycle. In 521 incidents the duration and number of cycles is listed as "unknown", suggesting possible shortcomings in the reporting of data from the agencies involved.

(119) According to his family, Borden, who was diabetic and also suffered from bipolar disorder, was confused because he had not taken his insulin for several days.

(120) This means the taser was used as a stun gun; it may have meant "drive stun", the common term for taser use in stun-gun mode.

(121) Report of Dr Sidsel Rodge, op cit.

(122) From autopsy report on Eddie R. Alvarado, the Department of Coroner, Los Angeles, California, 15 June 2002.

(123) From Officer Involved Use of Force Report, by Brian K. McHugh, Chief Deputy District Attorney, 18th Judicial District, Colorado, July 7 2004. The report reviewed written reports of the police investigation, officer and witness statements and other materials.

(124) The in-built memory chip downloaded from the taser showed that the trigger had been pulled seven times, but collectively people at the scene observed only five discharges, so the report concluded that the two additional trigger pulls must have been within the five-second default period. However, there were inconsistencies in reports of when, for how long and how many times the taser was used in stun or dart mode. There were also discrepancies in the time line due to the "variance in the accuracy of the various clocks involved".

(125) Orlando Sentinel 5 August 2002 and 2 October 2002 – one report states he was jolted 12 times, another states he was struck 13 times. The autopsy refers only to "Taser usage" by police and notes two areas of circular abrasions with underlying dermal thermal effect.

(126) Pathologist William Anderson, cited in media reports at the time and more recently in "Taser Safety Claim Questioned", Arizona Republic, 18 July 2004

(127) Report of Dr Sidsel Rogde, op cit.

(128) Emergency Medical Services Agency

(129) From transcript of testimony at inquest held in Las Vegas on 25 June 2004

(130) transcript of inquest op cit.

(131) sources: "Nevada Man Dies in Struggle with Authorities, Taser Involved", Associated Press, 16 September 2004; Arizona Republic, 17 September 2004. Amnesty International was seeking a copy of the autopsy at the time of writing.

(132) "Pathologist says Taser contributed to jailed man's death", Associated Press, 23 August

2004

(133) There have been several cases reported of the onset of ventricular fibrillation hours after a low voltage shock (e.g. Journal of Critical Illness, March 2002 "Electrical injuries: an emergency department approach; Cardiac monitoring and an ECG are essential"; Cardiac fibrillation, <http://radsafe.berkeley.edu/lsm1101appj.html>.)

(134) Reported in Taser International News Bulletin, Topic: In-Custody Deaths, February 2002.

(135) Letter to ACLU, Colorado, op cit.

(136) "Man Dies After Brea Police Shoot Him With Stun Gun", Los Angeles Times 8 October 2003. This reports only when the officers noticed he had stopped breathing

(137) Metabolic acidosis is a condition in which the acid level within the blood is higher than normal; this can have a number of causes, including ingestion of toxic substances. If metabolic acidosis becomes severe, the person may develop: weakness; confusion; shock; heart problems such as arrhythmias.

(138) This was noted in a letter from Taser International to Mark Silverstein of the ACLU, Colorado, dated 26 February 2004, in response to concerns raised by the ACLU about the possibility of tasers contributing to deaths caused by metabolic acidosis.

(139) J.M. Kenny, W. Bosseau Murray, Wayne J. Sebastianelli, W. J. Kraemer, R. M. Fish, D.T. Mauager, T. L. Jones, "Human Effects Advisory Penal Report of Findings: Sticky Shocker Assessment", National Criminal Justice Reference Service Doc. No. 188262 (1999).

(140) Fish RM, Geddes LA, "Effects of stun guns and tasers", Lancet, September 2001.

(141) Traditional "hogtying" involves the individual's wrists and ankles being bound together, so that the shoulders and ankles are raised, placing pressure on the abdomen, a particularly dangerous procedure. The hobble restraint may have a longer cord between the wrist and ankles, allowing somewhat more movement, mainly to allow the individual to be transported in an upright position; while this is less dangerous, deaths have been reported from the hobble restraint, even where someone is placed on their side or upright.

(142) These include U.S. Department of Justice National Institute of Justice (NIJ) Advisory Guidelines for the Care of Subdued Subjects (June 1995); NIJ Bulletin on Positional Restraint, October 1995; Metropolitan Police Complaints Authority (UK), bulletin July 2001.

(143) The most common forms of chokehold are the "carotid" restraint or the "lateral vascular neck" restraint both of which involve the application of pressure to the arteries in the side of the neck. Some of the largest US police agencies ban all forms of chokehold in all circumstances; these include the New York, Chicago, Philadelphia, Detroit and Houston police departments.

(144) Since the early 1990s more than 100 people in the USA are reported to have died after being subjected to pepper spray. While most deaths have been attributed by coroners to other causes, such as drug intoxication or positional asphyxia, there is concern that pepper spray could be a contributory factor in some cases. Pepper spray has been found to be a factor in several recent in-custody deaths. Studies discounting a link between physical restraint and pepper spray have generally been conducted on healthy subjects and do not replicate what happens in the field. Further research is needed.

(145) See, for example, Amnesty International report: The Restraint Chair: How Many More

Deaths? AI Index AMR 51/31/2002

(146) It is unclear what the coroner meant by this, as the external marks from taser burns bear no relation to the effect the shocks may or may not have on the heart.

(147) Dr Sigdel Rogde's report to Amnesty International (op cit).

(148) Autopsy report in case of Terrence Hanna, July 2003

(149) Communities United Against Police Brutality "The Death of Walter C. Burks, An Analysis of Police Actions", April 12, 2004

(150) Mehle L.E. "Electrical Injury from Taser and Miscarriage", Acta.Obstet Gynaecol Scand, 1992; 71:118-23.

(151) Orlando Sentinel June 16, 1991

(152) The Olympian 11 November 2002

(153) The US Department of Defense is reportedly conducting an ongoing study, based, in part, on materials by Taser International, including operational use, but the results have not yet been made public.

(154) (R. Kornblum, M.D., S. Reddy, M. D, "Effects of the Taser in Fatalities Involving Police Confrontation," 36 Journal of Forensic Sciences, 434-48, 1991).

(155) 37 Journal of Forensic Sciences, 956-58, 1992

(156) R.M.Fish, L.A. Geddes, "Effects of stun guns and tasers", Lancet, September 2001, op cit.

(157) The early medical literature includes concern about the potential of tasers to disrupt the software or cable in pacemakers: Koscove ME. "The Taser Weapon: a new emergency medicine problem", Annals of Emergency Medicine, 1985; 14:1205-8.

(158) First DOMILL statement on the medical implications of the use of the M26 Advanced Taser, December 2002

(159) Ibid, paragraph A18

(160) Ibid, paragraph A30 (b)

(161) The ACPO guidelines state that "Authorized Firearms Officers (AFOs) ... are issued with firearms where the authorising officer has reason to suppose that they, in the course of their duty, may have to protect themselves or others from a person who is: in possession of a firearm or has immediate access to a firearm, or is otherwise so dangerous that the officer's use of a firearm may be necessary". (Operational Guidance on use of Taser, ACPO, 13 August 2004, p 3)

(162) During the year-long pilot study, tasers were deployed by UK police in 60 incidents but fired on only 13 occasions, resulting in minimal injury.

(163) Second statement on the medical implications of the use of the M26 Advanced Taser, DOMILL, July 2004, page 3. This current work included research into the effect of recreational drugs on cardiac function. DOMILL reported that the "results from the study ... 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." (ibid at page 3)

(164) The guidance states that "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 on determining the appropriate option."

(165) The guidelines also state that "Close monitoring of a subject throughout the period following application of the taser is of utmost importance. If the person is detained in a cell they should be subject to the same cell supervision provided for persons who have consumed alcohol or drugs. If there are any signs of adverse or unusual reactions then medical attention should be provided immediately and if necessary this must be given precedence over conveying the subject to the police station".

(166) The review was conducted by Dr Anthony Bleetman (Consultant in Accident and Emergency Medicine, Birmingham Heartlands Hospital, UK and Honorary Senior Clinical Lecturer, Dept of Surgery, University of Birmingham, UK) and Dr Richard Steyn (a Consultant in Thoracic Surgery, Birmingham Heartlands Hospital, Birmingham, UK). Their findings have been published as The Advanced Taser: a Medical Review, Bleetman and Steyn, April 27 2003 (available at the Taser International web-site).

(167) A Bleetman, R Steyn, C Lee. "Introduction of the Taser into British policing. Implications for UK emergency departments: an overview of electronic weaponry", Emerg Med J. 2004; 21: 136-140 (accepted for publication June 2003)

(168) Data from US Department of Health and Human Services, published in July 2004, showed that 11% of US adults aged 18 and over had ever been told they had some form of heart disease and 13 million (6%) had been diagnosed with coronary heart disease. This figure does not include those with undiagnosed heart problems.

(169) Turner MS, Jumbelic ML, Case Report: Stun Gun Injuries in the Abuse and Death of a Seven-Month-Old Infant, Journal of Forensic Sciences 2003, 48: 180-2.

(170) Report of Coroner, Will County, Illinois, in case of Jose Guadalupe Garcia.

(171) Report of Autopsy in case of Larry Frazier, Office of Chief Medical Examiner, Commonwealth of Virginia, July 2000.

(172) These require inter alia that law enforcement officials shall, as far as possible, apply non-violent means before resorting to the use of force and firearms; exercise restraint in such use and act in proportion to the seriousness of the offence and the legitimate objective to be pursued; minimize damage and injury, and respect and preserve human life. Law enforcement officials shall not use firearms except in self-defence or the defence of others against the imminent threat of death or serious injury; in any event, intentional lethal use of firearms may only be made when strictly unavoidable to protect life. (See appendix for extracts from the standards)

(173) "Overseas we primarily sell to law enforcement, and then when they are comfortable, we move to the mass market.

(174) <http://www.harpia.cz/taser/taser12.html> (accessed 9/2004) Reference : ADVANCED TASER M26 se pouziva v ozbrojenych slozkach techto statu:

(175) Australasian Business Intelligence, July 2, 2002: This gun's a stunner but not for criminals.

(176) Knight Ridder/Tribune Business News 23/9/2003: Scottsdale, Ariz.-Based Stun Gun Maker Continues to See Growth

(177) Airline Industry Information, March 28, 2002: Korean Airlines signs contract with TASER International.

(178) <http://www.cnn.com/2001/WORLD/europe/08/01/taser/> "There are to be tests in Sweden at the beginning of the year 2002 and we already have equipment in Poland," said Tuttle. Tasers are also bound for Finland.

(179) www.prnewswire.co.uk/cgi/news/release?id=105900 25/7/2003: Switzerland approves use of TASER brand conducted energy weapons. Becomes first European country to formally approve the new TASER X26

(180) Turkish Daily News 1/4/98: 'Is electro-shock safe enough to use?'

[Previous](#)