

# DEADLY RHETORIC:

HOW THE ACLU OF NORTHERN CALIFORNIA'S  
FIGHT AGAINST LAW ENFORCEMENT CONTROL  
TOOLS ENDANGERS COMMUNITIES

TASER INTERNATIONAL, INC.

01.20.06



TASER  
INTERNATIONAL

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# DEADLY RHETORIC:

## How the ACLU of Northern California Is Endangering Communities

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### Executive Summary

The ACLU of Northern California (ACLU-NC), with author Mark Schlosberg, released a 25-page “study” in September 2005 that is highly critical of the TASER® electronic control device and its manufacturer, as well as law enforcement departments, their training, and policies surrounding TASER device use. Contemporaneous with the release of this report, the author launched a media campaign supporting a multimillion dollar lawsuit filed by a related chapter of the ACLU against TASER International and a law enforcement department using TASER equipment. The report is an emotional, one-sided collection of newspaper clippings along with a survey of law enforcement training practices. The ACLU-NC report has only two citations from the medical literature, but a whopping 49 from news clippings. Hence, the “study’s” contents are based upon sources that are 96 percent emotion and innuendo (popular media), and only 4 percent science. This response will scientifically debunk the questionable reasoning of the ACLU-NC and will deliver a 10-point challenge to the ACLU-NC and Mr. Schlosberg.

Given their mission to protect civil liberties, it seems a bit inappropriate that a major theme of the ACLU-NC report is aimed at TASER International as a company. ACLU-NC even goes so far as to allege lack of disclosures of financial interests by TASER International. For example, Dr. Robert Stratbucker was a principal author of a safety study on the TASER X26. Even though Dr. Stratbucker was clearly disclosed as an employee of TASER International in the report, the ACLU-NC insinuates that the disclosure of employment was insufficient—that the study should have disclosed the exact compensation of his employment agreement, such as the fact that he, like every other employee at TASER International, received stock options. In reviewing scientific literature citations, disclosure of employment is standard practice. Disclosure of private compensation details is neither common nor appropriate.

The report also criticizes several police officers who served on an advisory board that oversees TASER International's training programs. Their compensation for serving on the advisory board included a few thousand dollars worth of stock options—a standard industry practice for most start-up companies.<sup>1</sup> The report fails to mention that the officers involved were selected from agencies that already had significant TASER programs in place, none were involved in their agency's purchasing departments, and that all had appropriately disclosed to their agency that they were being compensated by TASER International for off-duty work. Instead, the ACLU-NC report smears the officers' integrity through misleading insinuations that are inconsistent with the facts surrounding their involvement with a structured advisory board for TASER International.

The ACLU NC report is replete with unsubstantiated and negative innuendo. A central theme of the report is to repeatedly raise the issues that the Securities and Exchange Commission (SEC) launched an investigation into safety claims made by the company. The company fully cooperated with the investigation, providing more than 100,000 pages of documentation as well as voluntary interviews and testimony with employees. After examining the company for nearly a year, the SEC concluded its investigation into the safety issue with a recommendation of “no enforcement action.” To be clear, the SEC does not endorse products nor does it endorse company statements or claims. However, the examination that TASER International's public statements underwent represents a significant review process that yielded no adverse enforcement action. This outcome does not support the ACLU-NC's erroneous implications.

The following report has been developed by TASER International in response to the spectrum of attacks lodged against the company and its products in the ACLU-NC's September report. TASER technology, while not risk free, provides one of the lowest risk use-of-force alternatives available today. Data from many agencies deploying TASER devices show that TASER programs consistently lead to significant reductions in injuries to police officers and suspects, as well as averting many deadly situations that could otherwise result in the use of lethal force. The result is a clear improvement in both police officer and community safety. The following document will serve to educate its readers more fully regarding the technology that drives the TASER product line and the innovations that the company has implemented to advance the life-saving capabilities of these important public safety devices.

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<sup>1</sup> BoardSeat [Internet]. 2001. San Francisco. Available from: <http://www.boardseat.com>

# PART 1. TASER Technology

Every one of us has received at least one strong static shock in our lifetimes. The typical current pathway is from a doorknob, through a fingertip, then through the chest, and down through the legs to the floor. The shock can be painful and cause a significant muscle twitch, but it has never caused cardiac arrhythmia – much less a death. In fact, a search of the medical literature shows only one case of a static shock possibly affecting the heart, and that individual reported being **cured** of atrial fibrillation (a fairly benign chronic arrhythmia) after a static shock.<sup>2</sup>

To appreciate TASER technology, one needs only to imagine a similar shock, but delivered repeatedly at the rate of 19 times per second. This will immobilize a violent subject but without significant risk of affecting the heart.

The TASER X26 is programmed to deliver an electrical pulse of approximately 100 microseconds duration with about 100 microcoulombs of charge at 19 pulses per second for 5 seconds. The voltage across the body is less than 1,500 volts during the shock. The peak current of about 3 amperes is far less than that of a strong static shock, which can be as high as 37.5 amperes.<sup>3</sup> The average current is approximately 2 milliamperes (0.002 amperes).

The weapon also develops an open circuit arc of 50,000 volts in order to traverse clothing in cases where no direct contact is made. As much as the media is transfixed by this number, the 50,000-volt arc is **never** delivered to the body. It is delivered “across” thick clothing, but never through the body. Think of a garden hose with a sheet of plastic wrap over the end. If you turn on the water, pressure will build up inside the hose. Once the plastic barrier breaks, the water will burst through and the pressure will drop to a much lower level. In electrical terms, voltage is very similar to pressure. If there is an air gap between the TASER darts and the body of the target, the voltage or pressure **inside** the TASER wires will build up to a maximum of 50,000 volts. As soon as the voltage is high enough, an arc—just like a static arc—will form across the gap. Once the arc forms, it serves as an electrical bridge from the

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<sup>2</sup> Screnock T. 1999 Jan 5. Static electricity stops a recalcitrant arrhythmia. *Ann Intern Med.* 130: 1:78.

<sup>3</sup> Krickl, Michael. ESD: Where it comes from and how to protect against it. Maxim GmbH, Planegg, Germany. [www.web-ee.com/primers/files/ESD\\_Tutorial.pdf](http://www.web-ee.com/primers/files/ESD_Tutorial.pdf)

darts to the body. Just like the example of the garden hose, the voltage is instantly “released” as soon as the gap is bridged. By the time the electrical current is inside the body, the voltage has dropped to 1,500 volts or less for the TASER X26. For the ADVANCED TASER M26, the peak voltage across the body is about 5,000 volts, but with a similarly low average current of about 3.6 milliamperes (0.0036 amperes).

## CARDIAC SAFETY

In an effort to validate the safety margin of the TASER X26, TASER International sponsored a study at the University of Missouri, an institution with a reputation as a leader in defibrillation research. Because pigs are one of the easiest mammals to put into cardiac arrest, or ventricular fibrillation (VF), with electricity, they were chosen as the animal model. Even with the smallest pigs (only 60 pounds), the electrical output charge of the TASER X26 had to be increased by a factor of 15 to cause VF. In fact, a 200pound pig required more than 30 times the output of a TASER X26 to cause VF. This safety margin of 30:1 is far higher than that of many over-the-counter medications. For example, acetaminophen (the active ingredient in the Tylenol® brand medications) has a safety margin of about 10:1 for the recommended dosage.<sup>4, 5</sup>

These groundbreaking results were peer reviewed and published in the leading journal *Pacing and Clinical Electrophysiology (PACE)*.<sup>6</sup> This study was done with careful scientific procedures and set a new standard for non-lethal weapon research with its sound methodology. More importantly, no other studies have contradicted the results. On the contrary, other completed studies now being reviewed for publication strongly support those results. In fact, the data was validated in 2005 by a multiyear, multimillion-dollar study completed by the British

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<sup>4</sup> Wallace CI et al. 2002. Paracetamol poisoning: an evidence based flowchart to guide management. *Emerg Med J*.

<sup>5</sup> Jones AL. 2000. Recent advances in the management of late paracetamol poisoning. *Emerg Med (Aust)*.

<sup>6</sup> McDaniel WC, Stratbucker RA, Nerheim M, Brewer JE. 2005. Cardiac safety of neuromuscular incapacitating defensive devices. *Pacing Clin Electrophysiol. Suppl 1:S*.

government that calculated an even higher margin of safety than those found in the University of Missouri study.<sup>7</sup> Specifically, the UK study found:

*“In an attempt to evoke ventricular fibrillation, trains of simulated M26 or X26 TASER waveforms (designed to mimic the discharge patterns of respective TASER devices) were applied to the ventricular muscle. When the simulated waveforms were applied in this way, neither the M26 nor X26 waveforms elicited ventricular fibrillation at peak current densities up to the maximum output available from the laboratory electrical stimulation system. The threshold peak current density for generation of ventricular fibrillation for the simulated M26 waveform was greater than 70-fold the modeled current density predicted to occur at the heart during TASER discharge. In the case of the simulated X26 waveform, the threshold peak current density was greater than 240-fold the modeled current density.”*

Nevertheless, the ACLU-NC attempts to dismiss the results in the *PACE* study by pointing out that one of the authors, a disclosed TASER employee, had stock options in TASER International. What the ACLU-NC might not understand is that not only did every employee at TASER receive stock options it is standard practice in the medical device industry to compensate researchers with small stock options. If start-up, medical companies were not allowed to compensate medical advisors with stock options, there would be significantly fewer medical device advances.

## ACCOUNTABILITY

A glaring omission from the ACLU-NC study is a description of the built-in “accountability” features of the TASER device. While quick to jump to conclusions and innuendo, the ACLU-NC chooses to ignore the facts regarding the special features that TASER weapons provide. There is no other use-of-force option available that contains the level of built-in accountability for monitoring use.

Every TASER device deployed by law enforcement has a built-in computer system that records the time and date of each and every trigger pull. This enables law enforcement

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<sup>7</sup> Defence Scientific Advisory Council (DSAC) Sub-Committee on the Medical Implications of Less Lethal Weapons (DOMILL) (2005) Statement on the comparative medical implications of use of the X26 TASER and the M26 ADVANCED TASER. Dstl/BSC/BTP/DOC/803, 7 March 2005.

administrators and police oversight boards to effectively monitor the exact usage pattern for each TASER device. If a citizen lodges a complaint that an officer overzealously applied the TASER device, an impartial record is available to allow full investigation of the claim—a major advancement in police accountability.

One need not be reminded that there are no counters in batons that measure how many times a subject was struck, no measurement features in pepper spray to determine how much was used, and no impact sensors in gloves or boots to calculate how much force was applied in a physical encounter.

Furthermore, the TASER Cartridge contains 20-30 serialized identification tags that disperse when activated, leaving a serialized tracking system at the point of use.

Additionally, TASER International will begin shipping its next generation accountability enhancement, the TASER X Cam™ in early 2006. This new system captures video and audio from the moment the safety switch is turned off, providing an indisputable audio and video record of each incident. For years, organizations such as the ACLU and Amnesty International have been clamoring for enhanced police accountability. TASER International has been responsive to these concerns, introducing not just one, but three innovative new accountability enhancing technologies unavailable in any other device. Furthermore, these features are integrated into a system that is readily available, has been proven in real-world encounters, and has been embraced by law enforcement agencies throughout the world. Yet, the ACLU-NC would rather the reader believe that this is a rouge technology that has been put forth without any forethought, planning, or medical testing.

## INDEPENDENT HUMAN STUDIES

The ACLU-NC could not use the same criticism to attack the human study conducted by the University of California at San Diego (UCSD), which showed that the TASER weapon had no effect on the EKGs of 20 volunteers.<sup>8</sup> TASER International contributed no funding and was, in fact, unaware of the study until it was presented. The ACLU-NC states that the study was invalid because the volunteers “only” received TASER discharges of 2.4 seconds, which was less than the typical 5-second application in the field. In reality, 2.4 seconds represents the

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<sup>8</sup> Levine S, Sloane C, Chan T, Vilke G, Dunford, J. Academic Emergency Medicine, Society for Academic Emergency Medicine, May 2005, Volume 12, Number 5, Supplement 1.

mean, so some participants received longer exposures and others received shorter durations. In fact, if you review the study, individuals received exposures ranging from 1.2 seconds to a full 5-second discharge. It has been well established for decades that electrocution usually occurs in less than 1 second, and that longer durations have no significant impact on electrocution risk.<sup>9, 10, 11, 12, 13,14,15</sup> This is a critical scientific fact and will be referenced again to in the section on “TASER-related deaths.”

## U.S. DEPARTMENT OF DEFENSE RESEARCH

The ACLU-NC is especially eager to find fault in the U.S. Department of Defense Human Effects Center of Excellence (HECOE) study of TASER-type devices. This was a yearlong, in-depth study by the military to determine whether TASER weapons were safe and appropriate for military use. The Joint Non-Lethal Weapons Directorate (JNLWD) concluded that the TASER weapon was “generally safe” and—in a real show of confidence—the military went ahead with a large purchase. Detractors of TASER International, such as the ACLU-NC, lodged not one, but three criticisms against it. They claimed: (1) the study was not independent, (2) the study was incomplete, and (3) the study found heart damage. Let us address these criticisms in sequence.

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<sup>9</sup> Weirich J, Hohnloser S, Antoni H. 1983 November-December. Factors determining the susceptibility of the isolated guinea pig heart to ventricular fibrillation induced by sinusoidal alternating current at frequencies from 1 to 1000 Hz. *Basic Res Cardiol*; 78(6): 604-16.

<sup>10</sup> Younossi K, Rudiger HJ, Haap K, Antoni H. 1973 November-December. [Experimental studies on the threshold for fibrillation produced by direct or sinusoidal alternating current in the isolated guinea-pig heart] *Basic Res Cardiol*; 68(6): 551-68.

<sup>11</sup> Hohnloser S, Weirich J, Antoni H. 1982 May-June. Influence of direct current on the electrical activity of the heart and on its susceptibility to ventricular fibrillation. *Basic Res Cardiol.*; 77(3):237-49.

<sup>12</sup> Roy OZ, Park GC, Scott JR. 1977 September. Intracardiac catheter fibrillation thresholds as a function of the duration of 60 Hz current and electrode area. *IEEE Trans Biomed Eng.* ;24(5):430-5.

<sup>13</sup> Dalziel CF, Lee WR. 1969. Lethal Electric Currents. *IEEE Spectrum*:44-50.

<sup>14</sup> Biegelmeier G, Lee WR. 1980 New considerations of the threshold for ventricular fibrillation for AC shocks of 50-60 Hz. *Proc Instn Elec Engrs*;127:103-110.

<sup>15</sup> Ferris LP, King BG, Spence PW, et al. 1936. Effects of electrical shock on the heart. *Transactions of the American Institute of Electrical Engineering*;55:498–515.

(1) “The study was not independent.” The source of this criticism stems from the fact that experts from TASER International attended three data-gathering and review meetings. In fact, the Human Effects Risk Characterization (HERC) process used in the Department of Defense study is consistent with the National Academy of Sciences and the Society for Risk Analysis recommendations and standards.<sup>16</sup> It is hard to imagine how a study could be considered comprehensive if it did not include data from device developers or give researchers the opportunity to pose questions directly to the scientists who developed a given technology. To ensure a thorough and independent process, the final phase of this study involved an Independent Expert Review Panel (IERP) that submitted comments and recommendations that were incorporated into the formal HERC document.

(2) “The study was incomplete.” This was based on the statements in the results suggesting more research with drug intoxication and subjects with heart disease. Such a statement simply reflects scientific honesty and does not imply that the study was somehow incomplete. The scientific method requires suggestions for further study as one of the four parts of a conclusion. This practice is so well accepted that it is even taught for high school science fair projects.<sup>17</sup>

(3) “The study found heart damage in pigs.” This accusation actually relates to a separate study conducted by the HECOE. Nowhere did that report ever state a conclusion that the study found heart damage. Consistent with the other content in the ACLU-NC report, this accusation was from a news clipping of a February 9, 2005 *CBS News* story, not from the scientific report itself. This inflammatory statement, made by a cardiologist asked to provide a quick comment on the study without being given the chance to review the scientific literature, is a quote taken completely out of context. The facts are actually straightforward. The HECOE tested the blood chemistry of the pigs for many different substances related to stress, exercise, and muscle damage. These included potassium, lactate dehydrogenase, Troponin T, Troponin I, oxygen, pH (acidity), lactate, carbon dioxide, and creatine phosphokinase at 12 different times during their testing of the TASER-like device. After 36 full 5-second TASER system discharges over an approximately 70-minute period, the author Dr. James Jauchem found that there was

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<sup>16</sup> Human Effects Center of Excellence, Department of Defense (U.S.). 2004 October 18. Report on Human Effectiveness and Risk Characterization of Electromuscular Incapacitation Devices.

<sup>17</sup> Science Service [Internet]. 2005-2006. Washington, DC: Intel International Science and Engineering Fair: Science Project Primer: The Scientific Method. Available from: [http://www.sciserv.org/isef/primer/scientific\\_method.asp](http://www.sciserv.org/isef/primer/scientific_method.asp)

**no** significant rise in either of the Troponin markers. (Troponin is a marker that increases by 10 fold or more following a heart attack, but smaller fluctuations are commonly associated with physical activities not related to cardiac damage.)

Apparently the conclusions were not sufficiently sensational for *CBS News*, which contacted a cardiologist named Dr. Charles Rackley and asked his opinion of the mere presence of Troponin. He stated that it was a “red flag” and could have indicated some heart muscle damage.

However, it is entirely normal for Troponin T to go up briefly with exercise.<sup>18</sup> Further, Troponin I levels can run up fairly high in pigs from simply placing them on their backs, administering anesthesia, and introducing monitoring catheters—all procedures that were performed on the animals in the Air Force experiments.<sup>19</sup>

"During a heart attack the level of Troponin T and Troponin I will increase typically by more than 20 fold their baseline value ... Not only was no statistically significant difference in these biomarkers observed following TASER application ... but there is also no gradual and marked increase in these biomarkers ... The slight, and statistically insignificant fluctuations in these biomarkers observed in this study appear to be noise rather than evidence of any cardiac damage," concluded Dr. Hugh Calkins, professor of medicine and director of the arrhythmia service at Johns Hopkins Hospital and member of the TASER International Scientific and Medical Advisory Board.

"After viewing the *CBS News* report ... I am appalled at the direct implication that TASER use causes cardiac damage. As a physician and researcher I find it irresponsible to link minor, commonly observed Troponin elevations with heart damage," was the opinion of Dr. Richard Luceri, specialist in cardiac electrophysiology and also a member of the TASER International Scientific and Medical Advisory Board.

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<sup>18</sup> Neumayr G, Pfister R, Mitterbauer G, Eibl G, Hoertnagl H. 2005 September. Effect of competitive marathon cycling on plasma N-terminal pro-brain natriuretic peptide and cardiac Troponin T in healthy recreational cyclists. *Am J Cardiol.* 1;96 (5):732-5.

<sup>19</sup> Feng YJ, Chen C, Fallon JT, Lai T, Chen L, Knibbs DR, Waters DD, Wu AH. 1998 July. Comparison of cardiac Troponin I, creatine kinase-MB, and myoglobin for detection of acute ischemic myocardial injury in a swine model. *Am J Clin Pathol.* 110(1):70-7.

Yet the ACLU-NC report blindly quotes the *CBS News* story, without any independent verification of the actual results. If there is anything remarkable about the study, it is that there was no measurable evidence of any cardiac damage even after 36 TASER system applications.

The Troponin issue will be answered in even more detail with both human and animal studies that are currently in the peer-review process and should be published in early 2006.

## LAW ENFORCEMENT DATA IGNORED

All law enforcement department data demonstrating the impact of TASER devices on officer and suspect injury rates was ignored in the ACLU-NC report. The factual data overwhelmingly contradicts their thesis of TASER device danger. For example, the Cape Coral, Fla., Police Department had 19 suspect injuries in 2002, but with the introduction of TASER devices in 2003 and 2004, the number of injuries fell to 10 and then to just six. The Florida Gulf Coast University studied TASER device usage in Orange County, Fla., from 2000 to 2003. They found that the TASER device had saved 18 lives by providing an alternative where lethal force would have been otherwise used. When the Phoenix Police Department deployed TASER devices in a carefully monitored field study, suspect injuries dropped by 67 percent. After Seattle deployed TASER devices, they had zero fatal law enforcement shootings over a 12-month period for the first time in 15 years. When the Cincinnati Police Department deployed TASER devices, suspect injuries fell by 40 percent and citizen complaints fell by 50 percent. Below is a chart with samples of results reported by police departments deploying TASER devices.

Department	Officer Injuries	Suspect Injuries	Lethal Force	Force Complaints
Cincinnati PD	↓ 70%	↓ 40%		↓ 50%
Austin PD	↓ 53%	↓ 80%		↓ 32%
Phoenix PD		↓ 67%	↓ 54%	
Columbus PD	↓ 23%	↓ 24%	14 "saves"	↓ 25%
Orange County SO	↓ 80%		↓ 78%	
Charlotte-Mecklenburg	↓ 59%	↓ 79	19 "saves"	
Cape Coral PD	↓ 83%	↓ 40%		
Topeka PD	↓ 46%	↓ 46%		
Omaha PD	↓ 18%			

This raises a simple rhetorical question: If the TASER weapons are so dangerous, then why do the law enforcement agencies that report results show suspect injuries going down...rather than up after deployment?

## GLARING OMISSION

It is striking that the ACLU-NC did not quote a single medical study suggesting a specific and substantiated danger from the TASER weapon. And, apparently, they did not interview a single cardiologist that could support their position that the TASER weapon is dangerous. Instead they relied on 49 sensationalistic news clippings.

*"There's no justification for not having that tool available to us when it can mean the difference between shooting someone or taking someone into custody and into jail."*

# PART 2. Myths Repeated About TASER Devices

***A major component of the ACLU-NC “study” was the repetition of common myths as if they were accepted scientific facts.***

## MYTH: 50,000 VOLTS MUST BE DANGEROUS

There is a common myth that the TASER weapon delivers 50,000 volts to the body. As explained in the previous section, the peak shock voltage is only about 1,500 volts. And, even that is so brief (0.0001 second duration per shock) that the average voltage is only 1.3 volts.

Laypeople have heard the expression that it is not the voltage, but rather the current that kills. The peak current is less than the static shock from a doorknob and the average current is a very low 2 milliamperes. This level of current is so low that it won't even trip the GFI safety outlet in your bathroom, which requires between 4 and 6 milliamperes.<sup>20</sup>

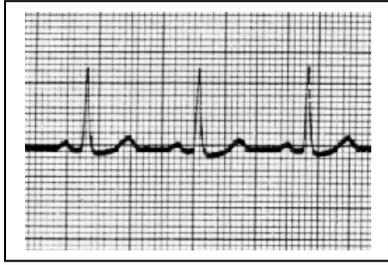
## MYTH: THE LIGHTNING LOTTERY

The ACLU-NC study attempts to give the impression that each time law enforcement officers use TASER devices, they are playing a game of hit or miss—once in a while they will hit an unlucky spot and kill the suspect. The study quotes media interviews with Dr. Kathy Glatter as saying, “If I hit the heart or create electricity in the wrong time of the [beat] cycle, it could send the whole heart into an electrical tailspin.” Dr. Zian Tseng had a more colorful metaphor when he stated, “I think they are dangerous ... you are shocking someone repeatedly, it becomes a bit like Russian roulette. At some point, you may hit that vulnerable period.”

What are these cardiologists talking about? Note the EKG tracing shown below. The tall spikes are the R-waves that signify that the heart is beginning to contract. The shorter and fatter “bump” after the R-wave is called the T-wave, which signifies that the heart is beginning to relax and refill with blood.

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<sup>20</sup> <http://ulstandardsinfonet.ul.com/scopes/0943b.html>



This T-wave is the “vulnerable” period of the heartbeat, the time when the heart is the most sensitive to an electric shock causing VF. So, Drs. Glatter and Tseng were simply explaining that a strong shock in the T-wave could induce VF. To this extent, their comments are absolutely true. Are these comments relevant to the TASER device? Not really. First of all, as can be seen in the sample EKG above, the T-wave covers a fair bit of territory or space on the graph. The most vulnerable section is the first half of the T-wave, which lasts about 54 milliseconds on average in humans.<sup>21</sup> The TASER X26 puts out 19 pulses per second. That means that the spacing between pulses is about one-nineteenth of a second, or 52.6 milliseconds. In other words, for the average individual there is no question of whether the TASER shock will occur during this vulnerable period—EVERY vulnerable period will be hit with a TASER pulse! (The tests discussed earlier showed that, even with a TASER pulse hitting every vulnerable period, the electrical output was far too low to cause VF.)

Then why doesn't the TASER device cause VF with every application? The answer is that the average current and the short duration of the pulse are too weak to affect the heart. The heart cells take about 4 milliseconds to be “charged up” by strong external shocks. Remember, the TASER X26 shock duration is only 100 microseconds, which is 0.1 milliseconds—too short to effectively stimulate the heart.

It is interesting to note that the cardiologists' quotes were obtained almost one year ago—before the numerous TASER safety studies began to appear—by aggressive reporters with tight deadlines, who gave the physicians little time to research the data or even go to the TASER International Web site to review the device specifications. The reporters also took the most explosive quotes out of long interviews, whether or not they accurately represented the whole picture. Dr. Tseng has informed TASER International that he had not been given an opportunity to review the medical studies or TASER operating specifications, and that his comments were taken out of context.

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<sup>21</sup> Hou CJ, Chang-Sing P, Flynn E, Martinez L, Peterson J, Ottoboni LK, Liem LB, Sung RJ. Determination of ventricular vulnerable period and ventricular fibrillation threshold by use of T-wave shocks in patients undergoing implantation of cardioverter/defibrillators. *Circulation*. 1995 Nov 1;92(9):2558-64.

## MYTH: KILLER COCAINE

It is well documented that cocaine has strong effects on the heart, such as dramatically raising the heart rate, blood pressure, and the risk of heart attack.<sup>22, 23</sup> Thus, the natural assumption is that cocaine also makes it easier to electrically induce VF. What is surprising, even to some cardiologists, is that this natural assumption is generally wrong. Most scientific studies have shown that cocaine makes electrically induced VP more difficult, not easier.<sup>24, 25, 26</sup> One study had mixed results depending on whether or not the animal was given an anti-drug-craving medicine or not.<sup>27</sup>

Cocaine has some properties in common with lidocaine (the rhyme is no coincidence) a drug frequently given to heart attack victims to forestall dangerous arrhythmias. Both cocaine and lidocaine slow the passage of sodium into heart cells and thus can slow down dangerous electrical waves in the heart, making it more difficult to electrically stimulate the heart.

Based on a careful review of the scientific literature, TASER International has stated that the presence of cocaine does not appear to increase the already low risk of fibrillation. This conclusion is consistent with the results of a soon-to-be published study of potential interactions between cocaine and TASER stimulation by a prominent academic institution.

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<sup>22</sup> Pozner CN, Levine M, Zane R. 2005 August. The cardiovascular effects of cocaine. *J Emerg Med.*;29(2):173-8.

<sup>23</sup> Qureshi AI, Suri MF, Guterman LR, Hopkins LN. 2001 January 30. Cocaine use and the likelihood of nonfatal myocardial infarction and stroke: data from the Third National Health and Nutrition Examination Survey. *Circulation*;103(4):502-6.

<sup>24</sup> Schwartz AB, Boyle W, Janzen D, Jones RT. 1988. Acute effects of cocaine on catecholamines and cardiac electrophysiology in the conscious dog. *Can J Cardiol*;4: 188-92.

<sup>25</sup> Schwartz AB, Janzen D, Jones RT. 1989. Electrophysiologic effects of cocaine on the canine ventricle. *J Cardiovasc Pharmacol*;13:253-7.

<sup>26</sup> Tisdale JE, Shimoyama H, Sabbah HN, Webb CR. 1996. The effects of cocaine on ventricular fibrillation threshold in the normal canine heart. *Pharmacotherapy*;3:429-37.

<sup>27</sup> Kanani PM, Guse PA, Smith WM, Barnett A, Ellinwood EH Jr. July 1998. Acute deleterious effects of cocaine on cardiac conduction, hemodynamics, and ventricular fibrillation threshold: effects of interaction with a selective dopamine D1 antagonist SCH 39166. *J Cardiovasc Pharmacol*. 32(1):42-8.

## MYTH: VULNERABLE SUBJECTS

This is a description that is often used in the media and put forth by special interests groups when describing individuals who die in-custody. But who exactly are these people and why are they so vulnerable? Did the TASER device make these individuals vulnerable, or were they in a severe medical crisis prior to law enforcement intervention? Let's be very clear, these are unfortunate and tragic deaths – and the grieving families are dealing with intense and deeply personal agony. However, one cannot ignore that the reason these people are considered “vulnerable” is that the majority of them chose to use illicit drugs—oftentimes in toxic quantities. Now that we know why they are vulnerable, why is the ACLU-NC not outraged by the drug dealers who gave them the drugs in the first place? Surely without these drugs most rational people would agree that these people may be alive today.

## MYTH: NO INDEPENDENT STUDIES

The ACLU-NC study fixates on the purported lack of independent studies of the TASER device. This would be alarming were it not completely false. Note that out of more than 80 studies or reviews of TASER-type devices or related basic science,<sup>28</sup> TASER International provided financial support to only seven. In five additional studies, TASER consultants or personnel attended data-gathering meetings associated with the research project to provide data and answer questions.

Overall, the body of research covering TASER technology includes medical studies, data reviews from medical and scientific experts, and real-world results reported from law enforcement. We firmly believe these reports support the view that TASER products reduce injuries and save lives compared to other use-of-force alternatives. We further believe there is no other non-lethal weapon that has been as widely analyzed as TASER devices.

As to the studies funded by TASER International, medical experts have informed us that it is prevalent in the field of medical devices and pharmaceutical products for studies to be sponsored by the companies that manufacture those devices. Why is this suddenly an issue for TASER International in the field of non-lethal weapons? The company takes medical safety seriously and invests responsibly in medical safety research, sponsoring grants for industry-leading research to ensure TASER products are as safe as possible. It would seem a much

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<sup>28</sup> [http://www.TASER.com/documents/Compendium\\_Final.pdf](http://www.TASER.com/documents/Compendium_Final.pdf)

more reasonable criticism if the company were **not** supporting scientific studies into the safety of its products.

## MYTH: TASER DEVICES ARE TOO DANGEROUS TO BE USED ON CHILDREN

We all certainly agree that children need to be protected to the greatest degree possible. However, sometimes situations arise where law enforcement officers have to subdue minors in order to prevent them from harming themselves or others. If police are categorically prohibited from using TASER devices when dealing with minors, what options will they have left? Clubs? Pepper spray? Firearms? The ACLU-NC falls back on its emotional rhetoric by mischaracterizing situations wherein legal minors have received a TASER application. Of course it is upsetting to think of a child being hurt, but there have been and will continue to be situations where TASER devices present the best alternative for dealing with juveniles in high-risk scenarios.

Again, note the omissions. Nowhere does the ACLU-NC give any scientific evidence that the TASER device is dangerous for juveniles. In fact, the University of Missouri study showed a clear relationship between the weight of the subject and the safety margin of the TASER device. Extending that line down to low weights suggests that the TASER device would not even have a remote chance of inducing VF until the subject weighed as little as 1 kg (2.2 pounds). If anything, the scientific data supports the idea of the TASER device being relatively safe for use on minors.

Furthermore, current scientific literature suggests that electrical vulnerability has nothing to do with age, but like drugs, is more appropriately correlated with weight.<sup>29 30 31</sup> In other words, a 14-year-old that weighs 200 pounds has higher safety thresholds for electric current than a 50-year-old that weighs 100 pounds. As we will show in the next section, many minors have had their lives saved by the careful deployment of TASER devices—an option that would not exist if the ACLU-NC recommendations were blindly followed.

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<sup>29</sup> Reilly JP (1998) Applied Bioelectricity. Springer-Verlag, New York.

<sup>30</sup> Geddes LA, Cabler P, Moore AG, Rosborough J, Tacker WA. 1973. Threshold 60-Hz current required for ventricular fibrillation in subjects of various body weights. IEEE Trans Biomed Eng BME-20:465-468.

<sup>31</sup> Webster JG.1998. Medical instrumentation application and design, Third Edition. John Wiley & Sons. New York.

# PART 3. Potential Death Toll From ACLU-NC Recommendations

The ACLU-NC report suggests that law enforcement be forbidden to use the TASER weapon on children or pregnant women. It further suggests that multiple applications be forbidden. Let's look at a few people that would probably be dead today if those suggestions were implemented.

## THE TUELLER RULE

First, we begin with the Tueller rule, which teaches law enforcement officers to shoot someone if they are threatening with a knife within 21 feet. If closer than 21 feet, a subject armed with a knife can close the gap and inflict lethal wounds, even on an officer with a drawn firearm. Many people refuse to believe this until they see an actual demonstration. These scenarios show how a knife-wielding attacker can cover the 21 feet and cut the officer with a training blade while the officer is still fumbling for his or her weapon. Knives are actually one of the biggest threats to officers. They are dangerous weapons that can be employed at point of contact, creating massive permanent wound cavities, and causing mechanical and biological trauma with excessive blood loss that can lead to shock and death. Only 10 percent of all officers who are shot in the line of duty die, whereas 30 percent of all officers attacked with a bladed weapon die.<sup>32</sup> These facts become truly terrifying when we also consider that the majority of all self-defense shootings occur within 10 feet or less, which is well within the kill zone of edged weapons.

## SAVE THE CHILDREN

Below are five unedited law enforcement reports of the TASER weapon saving the life of a child. (Unfortunately, we could have just as easily cited five cases in which lethal force has been used on a minor.) Note, there is a significant probability that each of these children would not have survived the incident if the ACLU-NC recommendations were followed and officers were prohibited from using a TASER in these scenarios.

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<sup>32</sup> Laur, Darren: Pat. 2004 January Wrap and Attack Edged Weapon Tactics and Counter Tactics, Integrated Street Combatives. Victoria (BC).

PHOENIX, AZ

June 5, 2004

*Suspect involved in domestic violence situation at residence with spouse. Suspect threatened to commit suicide and to kill 18-month-old-son. Upon officer arrival, suspect/spouse advised verbal argument only. Suspect upon request from officers to leave, grabbed knife and held to 18-month-old son's throat with serrated edge pressed firmly against his neck. Suspect stated will kill self and child if approached. Suspect exited residence and proceeded to backyard. Suspect used 18-month-old child as shield from lethal force—TASER deployment successful. Two TASERs fired total of one cartridge each. First TASER deployment by officer struck suspect in lower portion of back and 18-month-old child in upper portion of back. Suspect dropped the knife. Victim fell on top of suspect and rolled away. Circuit was broken between suspect and victim. Suspect reached for knife on ground. Second TASER deployment by officer, struck suspect in chest and waist area. Deployment successful, suspect taken into custody without further injury to self or victim. Lethal force encounter ended with two lives being saved thanks to the X26.*

WALKER COUNTY, TX

January 30, 2003

*Domestic disturbance with weapons. The suspect was a 9-year-old boy that is bipolar along with other mental health problems. He had assaulted his mother and was armed with two machetes. The mother locked herself inside the house. Officers arrived on scene, the suspect came at the officers saying that he was going to kill them and began [to] swing the machetes in a windmill style. The officers retreated about 75 yards down a state highway with the suspect chasing them. Crossed the road into a yard at which time the suspect backed up to a fence, officers tried a verbal dialog with the suspect, however the only thing the suspect would say was he was going to kill them like a ninja. Officers tried to move in to disarm the suspect, however the suspect would spin and come after the officers, [swinging] the machetes. TASER was deployed; the top probe penetrated the skin just under the left shoulder blade and the second probe making contact just under the belt line. The suspect immediately dropped the machetes and fell face forward onto the ground.*

PHOENIX, AZ

December 24, 2003

*Officer C responded to a domestic violence assault call on Christmas Eve involving a 14-year-old who was armed with a 12-inch butcher knife and had assaulted his father. The 14-year-old had a prior history of drug use and [attempted] suicide in another state and had threatened to*

*kill someone prior to officers arriving. Officer C made contact inside the residence before backup arrived, believing the 14-year-old may kill or seriously injure the father if immediate action was not taken. Officer C was confronted in the hallway of the home by the 14-year-old who was only 12 feet away and armed with the 12-inch butcher knife. The 14-year-old boy raised the knife toward Officer C and began approaching him yelling at the officer to shoot him. The 14-year-old refused verbal commands to drop the knife and continued approaching Officer C who began retreating to create distance. Officer C recognized he could not use his firearm because the boy's father was directly behind the boy in the line of fire. Officer C backed into a doorway and drew his X-26 TASER and continued verbal commands but the boy continued to yell at the officer he was going to kill him and wanted him to shoot him. Officer C deployed his TASER from a distance of 6-7 feet in the upper front torso area immediately incapacitating the 14-year-old and bringing him to the ground. Officer C was able to secure the knife and hold the 14-year-old at TASER point until backup arrived and assisted in taking him into custody. The officer was not injured and the 14-year-old only had puncture wounds from the TASER probes. The boy's father who, witnessed the entire incident, expressed his gratitude toward the Police Department and Officer C for his use of judgment and restraint in this potentially lethal confrontation. Because of Officer C's actions, the 14-year-old will get to spend another Christmas with his family and possibly get the help he needs. The 14-year-old made statements during his interview that he fully intended on attacking the officer to force the officer to shoot him in a suicide-by-cop incident. We all know how these incidents play out in the media.*

*"I am really glad they had that option—that technology."*

*Brian Banks, grateful father of the 14-year-old boy with a butcher knife whose life was saved by a*

*TASER weapon, in a Phoenix Channel 3 news interview*

SAULT STE. MARIE, ONTARIO, CANADA

October 17, 2003

*The 8-year-old male suspect (4' 10" and 100 lbs) had taken a knife after his mother, who had barricaded herself into the bedroom with her children and another youth. Her son was driving a filet knife through the hollow core door. Upon police arrival, the suspect came toward police with the filet knife and a pair of scissors, ordered verbally to drop the knife. Suspect refused and kept advancing towards the officer. The officer TASERed the youth [from] approximately 8 feet away.*

WESTMINSTER, CO

May 13, 2001

*On a report of a suicidal female (13-year, 5' 10" and 110 lbs) locked in a bathroom with at least two knives. She was told repeatedly to drop the knives and walk out of the bathroom. She was defiant and refused. She yelled through the door that she wanted to die and wanted to kill us. It was not known if she had cut or injured herself. After it was apparent that she would not come out, the door was forced open. The subject came at me with a knife in each hand over her head. I immediately discharged the TASER. She immediately dropped the knives and fell to the floor. After the TASER discharged for 5 seconds, she tried to stand and I activated it again. She was placed in custody and charged with aggravated assault.*

Other accounts of TASER devices saving violent minors from lethal force have appeared in news reports across the country. Two examples follow.

ORANGE COUNTY, FL

Aug. 16, 2005

*An Orange County deputy stunned a 14-year-old with a TASER twice Thursday morning when, authorities said, the teen charged after her boyfriend with an 8-inch chopping knife at the gates of their school.*

*Ninth-grader Roshounda Cooper was careful to jot down a reminder that she planned to attack her Gateway School classmate Jamar Hinds, Sgt. Stan Taylor said.*

*"Remember to bring knife" read a note on the front page of a black spiral-bound notebook that Roshounda carried to school in a three-ring binder. They were breaking up, Taylor said, and on Wednesday night Roshounda told Jamar, 15, that she would kill him at school with a knife.*

*"She had planned it out in advance," Taylor said. Attempts at reaching Roshounda's family were unsuccessful Thursday night.*

*Roshounda didn't forget her plan, officials said. She boarded the school bus Thursday morning with the knife tucked into the waistband of her pants. She pulled it out when she exited -- before security screeners at the school for emotionally challenged students had a chance to check her for weapons, Principal Tom Oldroyd and Taylor said.*

*A commotion began.*

*A school employee saw the knife and shouted, trying to block the path between the girl and her boyfriend, said Oldroyd, who arrived soon afterward.*

*Cpl. Ed Gordon tried to stop Roshounda by grabbing her right wrist. But the teen switched the weapon to her left hand and continued to attack, according to a report.*

*"Drop the knife," Gordon commanded, according to the report. Roshounda lunged toward him.*

*Gordon pushed her away, drew his .45-caliber Glock semiautomatic pistol and aimed. She moved toward him again.*

*"Don't point that gun at me," Taylor quoted Roshounda's warning to Gordon. Gordon pushed her away a second time.*

*Roshounda held the knife within 4 feet of Gordon, ready to strike. Deputy Mary McFarland, who also was patrolling at the school, drew her TASER and fired. Roshounda dropped the knife and fell on her stomach.*

*McFarland hit the girl on her breast and side with the weapon's electric prongs. The girl kicked at a deputy as they tried to subdue her, so McFarland zapped the TASER a second time, Taylor said.*

*Deputies arrested Roshounda on one count each of aggravated battery with a deadly weapon, aggravated battery on a law-enforcement officer and possession of a weapon on a school campus. State Attorney's Office officials will decide whether to charge her as an adult.*

*Although all school-resource officers are scheduled to be equipped with TASERs, Gordon had not yet received training for the weapon and did not carry one, Taylor said. Roshounda came so close to stabbing Gordon that agency policy would have allowed him to use his gun against the teen, Taylor said.*

*"He could have very easily used a deadly weapon," Taylor said. "But he didn't."*

*Jamar was unharmed.*

*No one was injured in the attack. Roshounda received treatment at Florida Hospital in Orlando to remove the TASER prong from her breast. That is standard procedure for anyone hit in a sensitive area, Taylor said.*

*Oldroyd said he was relieved the incident didn't end differently.<sup>33</sup>*

APPLETON, WI

Sept. 25, 2003

*An Appleton police Lt. Dave Nickels came up against a 13-year-old girl wielding a Samurai sword with deadly force recently, he had little choice but to shoot her.*

*The shot did not come from a conventional firearm, but from an electronic stun gun known as a TASER.*

*The guns use propelled wires to conduct electric energy, disabling a suspect by affecting the person's central nervous system. Nickels said the grant money from the Office of Justice*

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<sup>33</sup> 2005 Aug 12. Deputy fires TASER at girl accused of having knife. The Orlando Sentinel.

*Assistance will be supplemented with matching funds of \$1,499 from the department's budget. He said the department has used TASERs in 50 confrontations with violent offenders since 2001.*

*Nickels said 60 of the department's 130 officers are trained to use the TASER. "Our goal is to eventually outfit every officer with a TASER," Nickels said.*

*In addition to reducing the risk of injury to an offender, Nickels said the TASER reduces risk and the potential for workers' compensation claims by officers encountering violent suspects.<sup>34</sup>*

*"A TASER saved a life last week ... And one 14-year-old girl should be very grateful ... The TASER did its work ... There is one lucky girl alive today ... There is a place for TASERs, and this is a vivid*

## PREGNANT WOMEN

In response to the study's mention of not using a TASER device on a pregnant woman, one should consider these three cases:

### NORTH LAS VEGAS, NV

July 27, 2005

*North Las Vegas police responded to a report of an armed robbery at a drug store. Officer Cary Wittwer found 18-year-old Ollie Simmons armed with a knife in an apartment complex on Cheyenne Road. He used the stun gun once to deliver an electric shock. Simmons turned out to be three months pregnant. She and her baby are doing fine.*

### RIDGELAND, SC

August 4, 2005

*Terri Toomer, who's seven months pregnant, was fighting with another woman early Sunday morning in the parking lot of a gas station convenience store. A store clerk called police after Toomer and the other woman started arguing in the store. Ridgeland Police Officer Dave Kopenhagen arrived and saw Toomer run to the other woman's car, reach inside, grabbed her by the hair and beat her. Kopenhagen was unable to subdue Toomer with physical control techniques. A TASER discharge subdued her. Toomer was treated by paramedics on the*

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<sup>34</sup> 2003 Sep 25. Police Arsenal May Get Boost. The Post-Crescent.

*scene and taken to the Jasper County Detention Center. She'll appear in court later this month on disorderly conduct charges. The other woman was not arrested.*

SMITHVILLE, MO

January 16, 2005

*Officers were dispatched to a domestic assault in progress. On arrival the officer observed a female striking a male with a large rock (5" in diameter). She dropped the rock and assumed a fighting stance squared off with the officer. Officer was informed by boyfriend that female suspect was 3 months pregnant and high on meth. Once second officer arrived the subject became more aggressive and stepped towards new officer. Subject would not comply with commands to submit to arrest. Due to subject being pregnant, officer felt best course of action was to use taser from behind. Officer deployed taser with immediate results. After five second cycle subject was extremely cooperative and was taken into custody without further incident.*

*A higher standard of care is certainly in order when employing any use-of-force option on a woman known to be pregnant. However, one can imagine a number of scenarios, including self-harm scenarios where the TASER could present the best option to save both mother and unborn child. For this reason, it is important that officers be trained to exercise extraordinary care and judgment in attempts to avoid employing any force on pregnant women whenever possible. However, it would be counterproductive to categorically deny officers the ability to choose the best tool to deal with high-risk situations.*

## PROLONGED OR MULTIPLE EXPOSURES

The study further risks officer and suspect safety by suggesting that extended or multiple exposures to a TASER device be avoided at all cost. It is important to note that out of the 926 incidents indicated as "life saved", 280 of those indicated that "more than one cycle" was utilized to resolve the life-saving incident (30.23 percent). For the total database, 9,525 incidents submitted, there are 1,970 where "more than one cycle" was indicated (20.68 percent).

Consider what the outcome may have been if the officers in the following cases below would have followed those guidelines:

FLAGSTAFF, AZ

October 19, 2005

*Officers were called to a local hotel in reference to a suicidal subject. When the officers arrived at the hotel they knocked on the door and identified themselves. The officers then attempted to kick the door open when a gunshot rang out towards the door and officers. The officers took cover and another gunshot came from inside the room grazing one officer on the elbow. The female suspect then yelled "get out of here". A short time later the female subject opened the room door holding a revolver in her hand. Officers continued to give commands to the suspect and she yelled "shut the f--k up". The female subject then put the revolver to her temple at which time officer deployed his TASER striking the suspect in the chest and leg. The suspect immediately fell to the ground. The officer depressed the trigger two more times for a total of 15 seconds before the handgun and suspect were able to be secured. Suspect was subsequently taken to the medical center for a mental health evaluation. Officer saved this woman's life.*

SPENCER, NC

October 9, 2005

*I was requested by another agency in regards to a suicidal subject that officers had been talking to for over an hour to get the suspect to drop a knife that he threatened to use on himself. The suspect was in a confined area and officers did not want to use pepper spray because of officer safety and making the situation worse with the suspect. The suspect had attempted suicide on another date by shooting himself so he was very capable of acting out his threat. The suspect was in a sitting position in the basement of a house and the only way to talk to him or see him was through an exterior door of the house and he was facing the door. We got a takedown team together and planned out what to expect and had a second officer ready with another TASER in case of a bad hit. The suspect kept waving the knife around and putting it to his throat and had already cut himself in various places on his body and stabbing himself in the leg. I deployed the TASER and kept a continuous shock for 16 seconds so that officers could secure the weapon and take the suspect into custody. No one was hurt and the TASER worked very well and allowed the officers the element of surprise and control over the suspect. The suspect was taken to the hospital for mental and physical evaluation. Because of the size of this suspect it would have been very dangerous for officers to have a one on one confrontation and the only alternative would have been deadly force to incapacitate the suspect.*

WESTMINSTER, CO

April 15, 2005

*Officers went to private residence on suicidal subject call. Subject was lying on his back with a large butcher knife in his hand. Subject refused orders to drop the knife, and he had already cut his wrist. Subject was verbally abusive and belligerent, and ordered officers to leave the house. He then grabbed the knife with both hands, and started sitting up, holding the knife in an upward, aggressive manner. Officer C fired the TASER from six feet, dropping the subject. The subject did not immediately drop the knife, so a second cycle (5 seconds) was applied. The cover officer (who was providing lethal force cover) was then able to grab the knife out of the subject's hand. Absent the TASER, this would have certainly ended in the use of deadly force, and the likely outcome would have been the death of the subject. He owes his life to the TASER.*

NEWTON, NC

November 06, 2005

*Subject threatened officer with axe, subject lowered axe but would not drop it after given commands. Subject was hit with TASER darts for 11 seconds so second officer could handcuff.*

GRAND ISLAND, NE

November 07, 2005

*Subject causing a disturbance at a residence Subject was armed with a knife. Subject was ordered to get on the ground and show his hands several times. Subject would not comply. First cartridge was shot, and one probe missed second probe stuck to his open coat, in the zipper area. This cartridge was fired from about 12 feet away. Second cartridge was fired from 6 feet away. Darts landed as shown above and subject immediately went to the ground. Trigger was held in for 10-15 seconds.*

MARINETTE, WI

November 12, 2005

*Officers responded to barricaded suicidal subject with butcher knife in each hand. Subject refused to come out. Officers made entry into residence and subject refused to drop knives in hands and was tased using extended cycle and was able to obtain knives from subject. Subject was taken into custody without further incident.*

CLOVIS, NM

November 26, 2005

*EDP male had used knife to assault family member and threatened to kill her. Subject was holding knife to his chest when officers arrived and threatened suicide. Officer deployed TASER striking EDP in upper chest and hand with immediate incapacitation. Second shock applied to induce EDP to drop the knife. Other non-lethal force options were not plausible because of threat and close distances involved. Lethal force cover was in place.*

COOLIDGE, AZ

December 13, 2005

*Domestic violence call, subject was hiding behind a door clutching two knives, one in each hand. He was ordered to surrender at gun point and refused, standing still and refusing to drop the knives. Officer Deployed TASER X26 making contact in the chest area and the subject fell dropping one knife. After refusing orders to drop the other knife a second deployment was done the knife was dropped. After securing the knives the subject during the arrest began to resist efforts to hand cuff him and a third application was deployed (all three from the same cartridge) he was arrested with out further resistance.*

LANSING, MI

November 05, 2005

*Officers responded to a call of a subject being held at knife point in the parking lot. When Ofc. L arrived the accused had the victim in a choke hold moving a 13 inch steak knife between her stomach and her neck. Upon commands from Ofc. L to drop the knife the accused responded by screaming, "f\*\*\*\*\* shoot me, shoot me or I will kill her". While screaming for the officer to shoot her, the accused began to walk towards Ofc. L, all the time shielding herself with the victim.*

*Ofc. W was second on scene and immediately drew his TASER. Both officers repeatedly ordered the accused to drop the knife. Having no exposed target on the accused, and a heavily traveled road as a back drop, Ofc. W deployed the TASER. The first deployment struck both the accused and the victim. They fell to the ground at which point Ofc. L was able to get the victim free from the accused. In doing so the probe was pulled from the accused.*

*The accused immediately turned the knife on herself, and began to stab herself in the center of her neck. Ofc. W reloaded with a fresh cartridge and deployed the TASER a second time. Both probes struck the accused center mass for 5 seconds. The accused continued to try to stab herself and still would not comply with verbal commands to drop the knife. Ofc. W discharged the TASER for a second 5 second round. The accused, now slightly dazed,*

*remained on the ground with the knife in her hand. Ofc. W approached the accused, kicked the knife from her hand, and then he and Ofc. L secured her in handcuffs. The accused remained combative until placed on a backboard by fire department and other officers on scene. The accused sustained three hits with TASER probes and one self inflicted stab wound to the center of her neck. The victim sustained one probe wound to her left forearm on the exterior/defensive side, as she was struck there while trying to pry the accused grasp off her neck.*

Without the TASER this incident would have resulted in an officer involved shooting. The use of the TASER saved the life of both the victim and the accused.

#### GLENDALE, AZ

January 20, 2005

*My officers had a domestic violence call where the husband had assaulted his wife pretty badly and took off with their 5-year-old son in a car. The officers were able to get the car stopped in an apartment complex parking lot and confronted the man. As they approached the vehicle, the man produced a knife and threatened the officers with it from the vehicle. A short standoff occurred with the officers not retreating because the 5-year-old was in the passengers' seat and within reach of the man. As officers were addressing him the man lunged for his 5-year-old with the knife and a TASER was deployed. The man was immediately incapacitated and was pulled from the driver's side while the 5-year-old was pulled from the passenger's side. The man received a 30-second continuous ride while being removed and the world was a safe place again. ALL of the officers in this situation came to me and thanked me for the weapon and their training relating to the TASER. They all agreed that this would have been a definite shooting had the weapon not been with them.<sup>35</sup>*

*The officers had to give a continuous 30-second TASER application to keep the violent subject from killing his own son. This is the equivalent of 6 normal applications. Under the ACLU-NC recommendations, this would not have been allowed and this 5-year-old boy could have been stabbed or the father shot as law enforcement tried to stop the knife attack.*

#### WATERBURY, CT

February 14, 2005

*A Naugatuck man was arrested last week after he grabbed his 2-month-old baby and choked her until she was unconscious, police said.*

*Police officers had to shock Otis Waterman, 28, of 567 Millville Ave., twice with TASERs before they could restrain and handcuff him. The baby was treated and released from Saint*

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<sup>35</sup> Report of: Sgt. Stephen Hadley Glendale Police Department, AZ

*Mary's Hospital, said Sgt. Christopher Corbett, police spokesman. Officer Jason Lanoie was treated and released from Saint Mary's for an injury to his right hand.*

*The baby's mother, Waterman's girlfriend, called police about 10:15 p.m. last Thursday. Corbett said the two were arguing and Waterman became violent. Sgt. Todd Lovejoy and officers Ruta Melninkaitis and Lanoie responded to 67 Sylvan Ave. They saw tables overturned, belongings smashed and a hammer stuck in a hole in the wall. Waterman grabbed his daughter when he saw the officers, Corbett said.*

*The officers reported they tried to persuade him to put the baby down, but he refused. Waterman then grabbed his daughters' throat and choked her, Corbett said.*

*"He was basically using the child as a shield to hold the officers at bay," Corbett said.*

*Melninkaitis positioned herself close to the baby and when Lovejoy shot his TASER into Waterman's back, Melninkaitis retrieved the baby safely, Corbett said.*

*The shock forced Waterman to the floor but he struggled when Lovejoy and Lanoie tried to handcuff him, Corbett said. Lanoie then shot his TASER into Waterman's back and officers were able to restrain him.*

*This is the first time officers have put their training on TASERs to use, Corbett said.*

*Waterman, who is being held on a \$250,000 bond, was charged with second-degree criminal attempt at assault, first-degree reckless endangerment, and risk of injury to a minor, interfering with an officer, second-degree breach of peace, second-degree criminal mischief, and assault on an officer and violation of a protective order. He is scheduled to appear in Waterbury Superior Court today.*

*Waterman also has multiple felony convictions in New York on burglary, narcotics and weapons charges, Corbett said. He has been arrested for burglary, disorderly conduct and interfering with police in area communities. In March 2004, Watertown police arrested Waterman on charges of third-degree burglary, third-degree larceny and interfering with an officer. He was arrested after allegedly stealing a television set and other items from Polk School, where he was a temporary help employee, police said. In July 2004, Naugatuck police arrested Waterman on charges of disorderly conduct and interfering with an officer.<sup>36</sup>*

Would this lifesaving action have been doubly prohibited by the ACLU-NC recommendations? After all, the child could have been shocked by the TASER. And, the officers did deliver multiple exposures which also goes against the ACLU-NC thinking. Yet, it clearly saved one—if not two—lives.

Now consider two cases where deputies did not use extended or multiple TASER discharges.

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<sup>36</sup> WATERBURY, CT Republican-American, February 14, 2005.

JEFFERSON PARISH, LA

September 25, 2004

*Four Sheriffs Deputies responded to calls from Lakeside Mall private security guards regarding possible simple criminal damage and a person destroying property near one of the mall's outside doors.*

*Officers saw Mr. Maurice Gosserand in a service alley of the mall. Mr. Gosserand was holding a metal pipe. Mr. Gosserand left the service alley. An officer drew his TASER device from its holster and ordered Mr. Gosserand to put down the metal pipe. The officer then fired the TASER device at Mr. Gosserand and he fell to the ground and was immobile for a period of time.*

*When Mr. Gosserand revived and began to walk away from the officer, the officer reloaded the TASER device and again deployed into Mr. Gosserand's back. Again, Mr. Gosserand was lying immobile. When Mr. Gosserand revived this time he struck one of the offices with the pipe, and then fled through the mall parking lot.*

*As he was fleeing, Mr. Gosserand reportedly encountered an officer who repeatedly shot Mr. Gosserand, causing three gunshot wounds to Mr. Gosserand's groin, chest, and back. After the gunshot wounds Mr. Gosserand was taken to the hospital and was pronounced dead.*

Incredibly, TASER International is being sued for products liability in this case—accused of unreasonably dangerous design and warnings. Albeit this time the only alleged drawback of the TASER device is that the effects are so short-lived that the subject immediately recovered, continued his aggressive behavior, and elicited a lethal force response.

What many people fail to understand is just how fast subjects recover after a TASER hit. In fact, recovery is virtually instantaneous after the electric current turns off. In this case, the subject was incapacitated during the TASER cycle and recovered after the discharge. Would the outcome have been different if the officers had instead used extended or multiple TASER discharges while they restrained the subject?

ORANGE COUNTY, FL

October 11, 2005

*An unidentified man shot and wounded an Orange County deputy sheriff Monday evening after he was chased down by deputies and shocked with a TASER.*

*Deputy Sheriff Adam Pierce, 25, was listed in serious but stable condition at Orlando Regional Medical Center after the shooting near South Orange Blossom Trail and 41st Street.*

*Doctors decided not to do surgery on Pierce on Monday night and instead will keep him under observation, said Lt. Al Rollins, a sheriff's spokesman. Rollins would not discuss Pierce's injuries except to say the four-year veteran of the department was shot twice.*

*At about 6:40 p.m., Pierce and his partner, Deputy Sheriff Robert White, 41, spotted a "suspicious person on a bicycle wearing all black," Rollins said. The man fled as the deputies approached. They chased the man on foot and tried to subdue him with their Taser electric-shock guns.*

*"The suspect was Tased by the deputies; the suspect went to the ground," Rollins said. But then he "rolled away from the deputies and produced a handgun," firing on the deputies and striking Pierce, Rollins said.*

*Sources within the agency indicate that the subject was incapacitated during the TASER application. When he recovered after the TASER discharge, he rolled over, produced a firearm, and shot the deputy. Current prognosis is that the deputy will likely be paralyzed for the remainder of his life due to spinal cord injuries.*

The ACLU-NC criticizes TASER training as "inconsistent" because it teaches that officers need to be prepared to deliver multiple shocks, yet it also teaches to minimize the number and duration of shocks whenever possible. In fact, this is true of any use of force—be prepared to continue to use force until the situation is under control, but use no more force than necessary. In the two cases above, extending the TASER discharge duration could have kept the subjects disabled for a longer period of time, allowing other deputies to disarm and restrain the subjects.

These examples clearly illustrate why overly simplistic, black-and-white rules such as prohibiting multiple or extended discharges could have disastrous consequences. Once again, officers must have the leeway to use their experience and discretion to determine the appropriate amount and duration of force to use to bring each unique confrontation to conclusion. Rarely does one punch, one baton strike, or even one bullet end a confrontation. It is equally unrealistic to expect that one TASER discharge will be universally sufficient to end every confrontation. To codify this faulty expectation into policy would be potentially disastrous.

## PART 4. What About the “TASER-Related” Deaths?

Why does the sun come up after the rooster crows? If you think that the rooster’s crow caused the sun to come up, you have committed the *post hoc ergo propter hoc* (Latin for “after this therefore because of this”) logical fallacy. You put your coat on before you go out on a winter day. Do you think your coat caused the air to turn cold? That is why reporters lacking both scientific training and an understanding of statistics may see causations where there is none.<sup>37, 38, 39</sup>

About 20,000 Americans die annually of drug-related causes according to the Centers for Disease Control and Prevention.<sup>40</sup> A cocaine overdose death is violent, disturbing, and often characterized with bizarre behavior.<sup>41</sup> The methamphetamine epidemic is also causing a rapidly increasing number of stimulant deaths that may soon exceed those of cocaine. The end-stage of chronic cocaine or methamphetamine usage is typically a fairly consistent sequence of events referred to as “excited delirium.”<sup>42, 43, 44</sup> These same symptoms can also be seen in violent struggle deaths triggered by a psychiatric episode.<sup>45 46</sup> This has been recognized as far back as before the American Civil War.<sup>47</sup>

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<sup>37</sup> Berenson A. 2005 Feb 17. Demands rise for tighter oversight on use of stun guns. *New York Times*; Sec: A:24(col 1).

<sup>38</sup> Anglen R. 2004 Jul 18. TASER safety claim questioned. *Arizona Republic*.

<sup>39</sup> Anglen R. 2005 May 26. 120 cases of death following stun gun use. *Arizona Republic*.

<sup>40</sup> CDC data showed 19,102 deaths from drug related causes in 1999.

<sup>41</sup> Wetli CV, Mash D, Karch SB. 1996 Jul Cocaine-associated agitated delirium and the neuroleptic malignant syndrome. *Am J Emerg Med.*;14(4):425-8. Review.

<sup>42</sup> Blaho K, Winbery S, Park L, Logan B, Karch SB, Barker LA. 2000 Jun Cocaine metabolism in hyperthermic patients with excited delirium. *J Clin Forensic Med.*;7(2):71-6.

<sup>43</sup> Sztajnkrzyer MD, Baez AA. 2005 Apr Cocaine, excited delirium and sudden unexpected death. *Emerg Med Serv.* 34(4):77-81.

<sup>44</sup> Ross DL. 1998 Nov Factors associated with excited delirium deaths in police custody. *Mod Pathol.*;11(11):1127-37. Review.

<sup>45</sup> Morrison A, Sadler D. 2001 Jan Death of a psychiatric patient during physical restraint. Excited delirium--a case report. *Med Sci Law.* 41(1):46-50.

Before delving into what is most likely the true culprit in many of these deaths, let's address a few of the inaccuracies and false statements in the "study" as it relates to the so-called TASER deaths. In fact, one need not look any further than two reports that ACLU-NC's sister organization in Southern California put out in 1993 and 1995 on pepper spray and in-custody deaths. While the ACLU-NC would lead you to believe that people only die in custody when TASER devices are used, or at least that the TASER device is responsible for "the rising fatality rate," one need only to examine the many parallels in those two reports. In the first report, "*Pepper Spray: A Magic Bullet Under Scrutiny (1993)*,"<sup>48</sup> the ACLU of Southern California documents seven fatalities after the use of pepper spray in just nine months between January 2 and September 10, 1993. The next report, "*Pepper Spray Update: More Fatalities More Questions (1995)*,"<sup>49</sup> is even more telling of the inaccuracies of this report out of the ACLU-NC.

Beyond the parallels of the incidents that are described in the 26 pepper spray deaths, let's examine the raw data—26 in-custody deaths in two years. Of the 26 individuals, 13 were found to have methamphetamine and 8 had cocaine in their systems. Pepper spray was mentioned in 14 of the autopsies. The report states that in California alone, 1,533 people died in police custody between 1988 and 1992. That works out to be more than 306 each year. However, it concludes that only 178 (35.6 per year) of those were in situations similar to when pepper spray would have been deployed, so it is not clear whether deaths increased or decreased after the introduction of pepper spray. Either way, both numbers clearly demonstrate that there is NOT "the rising fatality rate," that the ACLU of Southern California would lead you to believe. Keep in mind, these numbers are from 10 years ago, at a time when there were fewer officers on the street protecting our communities, and without the rampant

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<sup>46</sup> Pollanen MS, Chiasson DA, Cairns JT, Young JG. 1998 16 Jun. Unexpected death related to restraint for excited delirium: a retrospective study of deaths in police custody and in the community. *CMAJ*. 158(12):1603-7.

<sup>47</sup> Bell, L. 1849. On a form of disease resembling some advanced stages of mania and fever, but so contradistinguished from any ordinary observed or described combination of symptoms as to render it probable that it may be overlooked and hitherto unrecorded malady. *American Journal of Insanity* 6:97-127.

<sup>48</sup> Pepper Spray: A Magic Bullet Under Scrutiny (1993) [www.aclunc.org/policed/pepper-spray-brief-html](http://www.aclunc.org/policed/pepper-spray-brief-html).

<sup>49</sup> Pepper Spray Update: More Fatalities, More Questions (1995) [www.aclunc.org/policed/pepper-spray-brief-html](http://www.aclunc.org/policed/pepper-spray-brief-html) .

methamphetamine abuse of today. Could “Meth” be the culprit? Could this possibly be the reason for these in-custody deaths?

If TASER device was really the cause of these deaths, why are we seeing levels comparable to — not “skyrocketing” higher than — 10 years ago? If the numbers alone don’t convince you, let’s compare a few incidents detailed in both “studies.”

April 28, 1993

Michael Coleman, Age 26

*Late in the afternoon of April 28, Tulare police responded to a location to attempt to arrest Coleman, an African-American, on burglary charges. A foot pursuit ensued, during which Coleman ran into a house. Police followed and a fight resulted when officers tried to take Coleman into custody.*

*The coroner’s investigation found that: “The decedent was struck with police batons, sprayed with pepper mace (OC), which had no effect on decedent, and was placed in a chokehold.” Despite this sequence of events, Coleman was able to walk, handcuffed, to a patrol car. By the time he arrived at a hospital for treatment of a cut to his hand, he had become unresponsive. He died minutes later.*

*Coleman, who was 6 feet 4 inches tall and weighed 181 pounds, was found at autopsy to have normal internal organs, including a normally sized heart. His blood contained high levels of cocaine.*

*The coroner’s office concluded that: “Deceased expired due to the combination of the physical altercation, flight, and the cocaine intoxication. Thus, his death is determined to be due to accidental cause.”*

July 13, 1993

Scott Hodgson, Age 38

*Police responded to numerous 911 calls of a man “running berserk” near a San Jose intersection. They encountered Hodgson, an Anglo, who was described as “belligerent and uncooperative.”*

*Police struggled with Hodgson, during which he was sprayed with OC. Hodgson apparently continued to struggle after he was sprayed. News accounts reported the OC had “no noticeable effect.” After police got Hodgson to the ground and handcuffed him, “the defendant stopped breathing.” Cardiopulmonary resuscitation was initiated, but Hodgson was dead when he arrived at a hospital.*

*At autopsy, Hodgson, who was 6 feet 2 inches tall and weighed 212 pounds, was found to have a moderately enlarged heart, with mild formation of plaque in his coronary arteries but no evidence of closure of these vessels. He was found to have high levels of methamphetamine in his bloodstream. His death was attributable to acute methamphetamine intoxication.*

January 18, 1995

Derek Wallace, Age 29

*On the evening of Jan. 18, Antioch police responding to a call of a male subject acting in an erratic manner, found Wallace standing in the middle of a street. Wallace, reportedly delusional, struggled while the police attempted to take him into custody. During the struggle officers pepper-sprayed Wallace and were then able to handcuff him.*

*The police held down a struggling Wallace until they noticed that the subject had become unresponsive. Wallace arrived at the hospital in full cardiac arrest and could not be resuscitated.*

*The coroner attributed Wallace's death to positional asphyxia with excited delirium, due to methamphetamine intoxication. The coroner's findings neglect to mention that pepper spray was used on the decedent and deny the possibility that he was asthmatic. However, news reports indicated that Wallace did suffer from asthma. The decedent's family has retained counsel.*

With no more research than what existed 10 years ago, pepper spray is still a very useful tool to law enforcement and for personal self-defense for private citizens. There are still in-custody deaths today in incidents where pepper spray was used, just like 10 years ago and every year since. But pepper spray is no more the cause now than it was then. The only other things that haven't changed are drugs and excited delirium.

If a person with normal mental function has excessive exertion, their brain will recognize the signals that the blood is getting acidic and will force the body to slow down. If someone's mental functioning is such that this feedback signal is ignored (a state known as "excited delirium"), they may struggle until they die.<sup>50</sup> Thus, excited delirium can kill by making the blood so acidic that nothing can function.<sup>51, 52</sup> The typical symptoms of excited delirium are agitation,

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<sup>50</sup> Hick JL, SW Smith and MT Lynch. 1999. Metabolic acidosis in restraint-associated cardiac arrest: a case series. Acad Emerg Med 6:239-243.

<sup>51</sup> Stephens BG, et al. 2004. Criteria for the interpretation of cocaine levels in human biological samples and their relation to the cause of death. Am J Forensic Med Pathol 25:1-10. #173 paper.

incoherence, hyperthermia, paranoia, displays of public nudity, violent aggression, attraction to glass and lights, constant motion, and feats of incredible strength with a high degree of mortality.<sup>53</sup> It is believed that precursors to this condition are chronic, illicit stimulant abuse, presence of certain mental health conditions and also use of certain mental health medications.<sup>54, 55</sup>

When someone is dying from excited delirium, they exhibit unusual and violent behavior that often attracts attention. Law enforcement is then called and they have to deal with this syndrome for which no recognized treatment has been agreed upon.<sup>56</sup>

Studies of excited delirium deaths show that the majority of the cases have no TASER device involvement.<sup>57</sup> Citizen Down, a law enforcement “watchdog” group, estimates that 1,000 American citizens die in law enforcement custody each year. More than 40 percent of the U.S. law enforcement departments have at least some TASER devices. If the officers that carry a TASER device were always called to deal with these violent cases, then one would estimate more than 400 “TASER-related” deaths per year (i.e. deaths occurring after an incident wherein a TASER device was used). That estimate is clearly much higher even than even the ACLU-NC would propose. Let us take a much more conservative estimate and use just the position that 12 percent of officers across the country carry a TASER device on their belts. That would give a very conservative estimate of 120 “TASER-related” deaths per year based entirely upon coincidental use, without any causality.

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<sup>52</sup> Wetli CV, Fishbain DA. 1985 Jul. Cocaine-induced psychosis and sudden death in recreational cocaine users. *J Forensic Sci* 30(3):873-80.

<sup>53</sup> Ruttenber AJ, et al. Fatal excited delirium following cocaine use: epidemiologic findings provide new evidence for mechanisms of cocaine toxicity. *Am J Forensic Med Pathol*, 1999;20:120-127.

<sup>54</sup> Blaho K, Winbery S, Park L, Logan B, Karch SB, Barker LA. 2000 Jun. Cocaine metabolism in hyperthermic patients with excited delirium. *J Clin Forensic Med* 7(2):71-6.

<sup>55</sup> Karch SB, Stephens BG. 1999 Mar. Drug abusers who die during arrest or in custody. *J R Soc Med*. 92(3):110-3. Review.

<sup>56</sup> Brice JH, Pirrallo RG, Racht E, Zachariah BS, Krohmer J. 2003 Jan-Mar. Management of the violent patient. *Prehosp Emerg Care*. 7(1):48-55. Review.

<sup>57</sup> Stratton SJ, Rogers C, Brickett K, Gruzinski G. 2001 May Factors associated with sudden death of individuals requiring restraint for excited delirium. *Am J Emerg Med*. 19(3):187-91.

## SUNRISES WITH NO CROWING ROOSTER

Who gets the credit when the rooster forgets to crow, yet the sun comes up anyway? Blaming the TASER device for every “related” death is easy until someone considers the majority of the excited delirium deaths where no TASER device is involved. San Francisco makes for a good place to study this as, due in large part to the ACLU-NC, they are one of the few major cities not yet using TASER weapons.

SAN FRANCISCO, CA

September 21, 2005

*A suspect died in police custody early Wednesday, the San Francisco Police Department reported. Craig Holden, 22, of San Pablo, died at the Bayview Station at 201 Williams St. at 12:09 a.m., about two hours after police stopped him for a minor traffic infraction, police spokesman Sgt. Neville Gittens said.*

*When police pulled him over Tuesday night, Holden got out of the car, walking away from the officer conducting the stop. At that moment, three other people who were in the car with Holden got out and ran. Holden also ran and the officers chased him, Gittens said.*

*After a short foot chase, during which officers called for backup, Holden was apprehended, resisted arrest and was subdued by force, Gittens said. A search revealed a handgun in Holden's car, according to Gittens. He was arrested on gun charges and taken to the Bayview Station.*

*Holden complained of difficulty breathing shortly after arriving at the station, Gittens said. Police officers called an ambulance. Arriving paramedics checked Holden out and then cleared him of health problems.*

*About 20 minutes later, Holden complained of chest pains again. Police administered first aid and called for another ambulance, but when paramedics arrived, they pronounced Holden dead, Gittens said.*

*Police and the San Francisco District Attorney's Office are investigating the case.<sup>58</sup>*

What law enforcement tool would the ACLU-NC blame for Mr. Holden's death?

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<sup>58</sup> Bay City News. September 21, 2005.

## TIMING IS EVERYTHING

How does TASER International, and its medical experts, know that the vast majority of these “TASER-related” deaths were not actually caused by the TASER device? The reason is surprisingly simple. The median time between the TASER application and the death has been about one hour. The most extreme case of a “related” death was of someone who died two days after his TASER-aided arrest. Since it is well known that electrocution is instantaneous, any death more than a few seconds after the TASER device usage must be eliminated.<sup>10,11,12,13,14,15</sup> Thus, the vast majority of “TASER-related” deaths can be dismissed based on the time between the TASER application and death.

## IS THE TASER DEVICE COMPLETELY RISK-FREE?

No. The TASER device is a weapon. It is used in dangerous situations with dangerous, violent people when there is no better alternative. Data suggests that about two out of every 1,000 subjects of TASER usage sustain injuries related to the TASER use. These are usually injuries related to falling to the ground. There was even one tragic fatality when a subject fell and sustained a fatal head wound when his head hit a street curb.

## IS THE TASER WEAPON SAFE?

Let us imagine, for purposes of intellectual argument, that all of the “TASER-related” deaths were, in fact, “TASER-caused” deaths. Would the device still be seen as safe? The independent think-tank, the Potomac Institute, performed just such an analysis. Their conclusions were: “Odds for stunning to contribute to (this does not imply “cause”) death are, at worst, one in one thousand. The ratio of lives saved to lives lost exceeds 70:1. By comparison, the similar ratio for air bags in automobiles is approximately 50:1.”<sup>59</sup>

The U.S. Food and Drug Administration (FDA) defines safety as follows: “A safe product is one that has reasonable risks, given the magnitude of the benefit expected and the

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<sup>59</sup> McBride, Dr. Dennis K., Tedder, Natalie B. A Potomac Institute for Policy Studies Report: Number 05-04 Efficacy and Safety of Electrical Stun Devices.

alternatives available.”<sup>60</sup> It is clear that the TASER weapon is a safe device by this definition. And, by the Potomac Institute’s analysis, it is safer than air bags. That analysis even assumed the worst-case scenario, which is that the TASER device actually caused the deaths. Finally, new analysis of air-bag safety would suggest that the TASER weapon is actually far safer than the air bag.<sup>61</sup>

## EXAMINING THE EXAMINERS

The ACLU-NC study states that in 18 “TASER-related” deaths, medical examiners indicated that TASER devices were a cause of death, a contributing factor in a death, or could not be ruled out as a cause of death. Even if we take this statement at face value and blame the TASER device for all 18 deaths, it would still appear to be an amazingly safe weapon. Eighteen deaths out of about 150,000 uses mean that the theoretical death rate is about 10,000:1.

Because medical examiners cannot detect electricity in the body after a shock like they can detect most drugs, they sometimes take a conservative approach and state that, “The role of the TASER was undetermined,” or “could not be ruled out.” And, that is precisely what is written in the majority of the 18 cases listed by the ACLU-NC.

A death from Excited Delirium, in the chronic drug abuser, will often occur at a point when the drug itself has been metabolized (processed) and thus is not detectable in the blood.<sup>62</sup> Or, it is detectable at a fairly low level not fatal for an acute usage. The tests to determine chronic drug usage are tricky, expensive, and time consuming. At a minimum, they require a quick freezing of the brain so that it can be analyzed for the deterioration caused by from long-term drug use. This is generally not done.

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<sup>60</sup> [Task Force on Risk Management, US Department of Health and Human Services and Food and Drug Administration. 1999. Managing the Risks From Medical Product Use: Creating A Risk Management Framework. http://www.fda.gov/oc/tfrm/executivesummary.html](http://www.fda.gov/oc/tfrm/executivesummary.html)

<sup>61</sup> The Innovations Report [Internet]. 2005 Feb 6. Airbags Associated with Increased Probability of Death in Automobile Accidents. Available from: <http://www.innovations-report.com/html/reports/automotive/report-44943.html>

<sup>62</sup> Karch SB. 1991 Jun Introduction to the forensic pathology of cocaine. Am J Forensic Med Pathol;12(2):126-31. Review.

Very rarely do the medical examiners affirmatively list the TASER device as a contributing factor. In some of those cases, TASER International has presented the autopsy and law enforcement records to cardiac electrophysiologists and experts in Excited Delirium. In the cases TASER International has analyzed to date, the medical experts have concluded that the medical examiners were in error. The most common mistakes made by the examiners were: (1) failure to appreciate the timing of electrocution, and (2) failure to adequately test for Excited Delirium.

## PART 5. The Real Issue

The real issue isn't the latest law enforcement tool or technique; it's the ongoing issue of in-custody deaths. For almost 200 years, individuals have expired in law enforcement custody, in some cases without clear indications of the cause. A more recent example of this phenomenon and target for attendant is another law enforcement tool, pepper spray. Before that, it was positional asphyxia, and before that the baton and flashlight strikes. In fact, today pepper spray is probably the most widely used non-lethal product most widely used by law enforcement, and also for citizen self defense. You can find it on the belt of just about every law enforcement officer across the nation. In fact, our same critics, the ACLU and Amnesty International, made the identical arguments and statements 10 years ago about its role in in-custody and sudden deaths. Yet 10 years later, without any significant medical or research studies to support its safety over that time, it's now a widely accepted use of force tool by both the media and special interest groups. Have in-custody deaths in incidents where these products are used stopped? No. In fact, they continue today. Yet they don't garner the same attention that TASER devices do. Why is that? When did the ACLU and Amnesty International criticism of pepper spray stop? Was it around the same time that the TASER technology was introduced to law enforcement on a wide scale? We've discussed some of the studies, reports, and comments on pepper spray from the ACLU and Amnesty International over the last 10 years. Do they look familiar? Do the numbers look familiar? Do the circumstances surrounding the deaths look familiar? Drugs, resisting arrest, struggle, some use of force, restraint and sudden unresponsiveness. We talked about a more recent and interesting comparison of a 12-month study on in-custody deaths conducted by Dr. Jeffery Ho, from Hennepin County Medical Center. Look at what this data tells us: Out of a total 162 unexpected in-custody deaths (excluding obvious causes such as gun shot wounds or other trauma), a TASER device was NOT used in 112 (almost 70 percent) of the cases.

Based on studies from Orange County, FL, the Phoenix Police Department, and dozens of other law enforcement agencies across the nation, we know that TASER devices are becoming the preferred method of control by law enforcement agencies across the United States because of their recognized benefits in reducing officer and suspect injuries. When TASER devices are introduced to departments the use of other force tools declines. Now this is an important point: TASER device use replaces other uses of force, it doesn't increase the overall use of force. We are also finding out that because of the incredibly high success rate

and low injury rate of the TASER devices compared to other products, it is frequently the most widely used option on the force continuum.

Because the TASER device is so effective, it is also being used on the most erratic, dangerous, and violent of individuals. These are also the people who are most likely to be in the most medically-compromised positions. In most cases, the only alternative is deadly force as officers know that use of any "pain compliance" tool such as pepper spray or batons on these individuals would not only be ineffective, it would also place the officers in greater risk of being injured or killed themselves. For these people, the only hope is the TASER device. We recognize that our products are being used in the most difficult and dangerous of circumstances. We accept that and take pride in that because these are also the situations where our products are most likely to help save lives. That's exactly what we intended them to do. But we also know, based on the nature of these encounters and some of the factors within these individuals that our technology cannot save them all. As good as TASER technology is, there are times when the sequences that lead to death cannot be stopped. We do know that for some of these individuals, the TASER device is the only real option, their only real hope of getting the help they need. And for that reason, we stand firm in our commitment to saving lives every day.

# PART 6. TASER International Challenges the ACLU-NC

Mark Schlosberg's, study makes many strong accusations and recommendations. The authors of this document feel that the ACLU-NC's accusations are unscientific and its recommendations are dangerous and reckless. To demonstrate the sincerity of the ACLU-NC motives we ask that the ALCU-NC respond to the following 10-point challenge.

1. We challenge the ALCU-NC to demonstrate its lack of financial motives behind this "study." Please disclose any ACLU-NC and personal potential profit from the case filed against TASER International in Las Vegas on the same day the report was released. Please disclose all donations from partners in law firms that are now suing TASER International and any financial interest that Mr. Schlossberg, his firm, the ACLU-NC, or its sister chapters of the ACLU have in the litigation cases against TASER International. The ACLU-NC challenged the financial motivations and disclosures of TASER International. We challenge the ALCU-NC and the various chapters of the ACLU to do the same.

2. We challenge the ACLU-NC to define the most critical medical study that needs to be done on TASER safety. We will split the cost with the ACLU-NC and put that money into escrow to keep it completely independent.

3. We challenge the ACLU-NC to name three scientific or medical experts to an arbitration panel. TASER International will then name another three. These six will then identify three more to create an arbitration panel of nine respected experts. They will then review the scientific literature and TASER studies and issue recommendations.

4. We challenge the ACLU-NC to name every subject that it believes has been directly killed by a TASER device, and we shall jointly submit this list to the panel of experts above for an expert opinion. Simultaneously, we will provide to the ACLU-NC a list of more than 870 specific instances when the TASER device prevented possible death or serious injury. This list is already posted on our website at [www.TASER.com/saves.pdf](http://www.TASER.com/saves.pdf).

5. We challenge the ACLU-NC to list every law enforcement use-of-force control tool that the ACLU-NC approves.

6. We challenge the ACLU-NC to explain how law enforcement officers are to handle a minor armed with a knife or of large body stature that is aggressively fighting arrest if officers are forbidden to use a TASER device.

7. We challenge the ACLU-NC to address the agency-by-agency law enforcement department data that consistently shows that the TASER device reduces officer and suspect injuries. The ACLU-NC had no trouble calling around to law enforcement departments to ask for the TASER training PowerPoints. Maybe this time the ACLU-NC could ask for their statistics.

8. We challenge the ACLU-NC to address the issue of diversity among law enforcement officers. Does the ACLU-NC believe that law enforcement agencies should encourage diversity? TASER International does. If the ACLU-NC shares our feelings, then please articulate how a 100-pound female law enforcement officer is supposed to take a 250-pound drunken resisting (yet unarmed) male into custody without a TASER device.

9. We challenge the ACLU-NC to state the exact number of shocks that should be allowed. The ACLU-NC recommendations state, "Agencies should, at a bare minimum, adopt policies to minimize the risk of death such as prohibiting repeated shocks." Please pick a number and support that with medical or scientific reasoning.

10. Finally, we challenge the ACLU-NC to explain to Tyrell Taylor, age 21, and his family why the ACLU-NC has worked to prevent the San Francisco Police Department from deploying TASER devices. As the ACLU-NC knows, the San Francisco Police Department was forced to shoot him when he was running away after pointing a rifle at them. He survived multiple bullet wounds but will never be the same. Officers had no viable alternative weapon and were forced to shoot him. The SFPD wanted to have TASER devices in 2004, but the ACLU-NC organization effectively stopped them.