

TASER RISKS IN HAMILTON COUNTY OHIO

October 1, 2012

Introduction

Several recent Taser related deaths in Hamilton County, Ohio, have caused many members in the local community to question their ongoing use. The families and friends of Doug Boucher (2009, Mason), Kelly Brinson (2010, University of Cincinnati), Everette Howard (2011, University of Cincinnati), and Corey McGinnis (2012, College Hill) have raised serious questions about the propriety of the Taser deployments that led to the deaths of their loved ones. The Community is speaking up and law enforcement should listen. Some residents want Tasers banned. Others want their use severely restricted. This report, prepared by the law firm of Gerhardstein & Branch Co., LPA, seeks to inform the local dialogue with helpful facts. Which local law enforcement agencies use Tasers? What policies do they follow on the deployment of Tasers? How do those policies compare to national standards? The facts and recommendations set out here should be used by residents and local law enforcement professions to upgrade local policies, make Taser use safer and hopefully save lives.

Executive Summary¹

The Electronic Control Weapon (“ECW” or “Taser”) can help law enforcement officers make arrests quickly and safely when used appropriately by temporarily paralyzing a suspect, reducing danger to both officers and suspects. While all uses of force carry a risk of injury, when Tasers are used inappropriately the risk of death or serious injury of the suspect greatly increases. That result typically unfolds in one of two scenarios: (1) the high voltage electricity coursing through the subject’s body captures the subject’s normal heart rhythm and causes ventricular fibrillation,² or (2) secondary injury occurs as a natural consequence of the subject’s loss of muscle control, such as head trauma after the subject plummets from an elevated surface.

That tension does not exist only in the abstract. The number of deaths in the United States involving ECWs has grown to over 500.³ And the risk is nationwide. Approximately 11,000 law enforcement and correctional agencies deploy ECWs in the United States,⁴ including at least 35 different local agencies within Hamilton County, Ohio.

¹ This report is compiled solely by the law firm of Gerhardstein & Branch Co., LPA. Al Gerhardstein takes full responsibility for the contents of this paper. He gratefully acknowledges the assistance of law student Doug Walter of the University of Cincinnati School of Law.

² Douglas P. Zipes, *Sudden Cardiac Arrest and Death Following Application of Shocks from a TASER Electronic Control Device*, 125 *Cardiac* 2417 (2012).

³ Press Release, Amnesty International, *Amnesty International Urges Stricter Limits on Police Taser Use as U.S. Death Toll Reaches 500* (Feb. 15, 2012), <http://www.amnestyusa.org/news/press-releases/amnesty-international-urges-stricter-limits-on-police-taser-use-as-us-death-toll-reaches-500> (last visited Sept. 27, 2012).

⁴ AMNESTY INTERNATIONAL, *LESS THAN LETHAL? THE USE OF STUN WEAPONS IN US LAW ENFORCEMENT*, at 11 (2008).

The ECW is a relatively new tool available to help officers control dangerous situations and its effects on the human body are still not completely known. Unsurprisingly, medical research and field data on ECW use are growing. At the same time best practice standards are evolving so that ECW use can be as safe as possible. Accordingly, regular training and policy review is imperative to ensure that law enforcement practices reflect current research and data so as to minimize risk and to maximize effectiveness.

Gerhardstein & Branch recently undertook a study of local law enforcement agencies within Hamilton County to determine which agencies' policies and training materials incorporate the safest and most effective ECW practices. Public records requests were sent to 41 agencies on July 27, 2012, to initiate this review. Multiple phone calls were placed in the intervening time to track and to facilitate progress of the responses.

As of the date of this publication 39 of those agencies responded, and of the responding agencies, 33 deploy ECWs capable of temporarily paralyzing subjects (the "Taser").⁵ Appendix A provides a chart displaying the various agencies' ECW policies and procedures. Appendix B is a chart displaying the ECW status of the agencies that were not included in the review. A copy of the original public records request is provided as Appendix C.

Notable results of the review include:

- **94%** of agencies' materials do not adequately warn that Tasers can capture the heart rhythm of the subject, possibly leading to death.
- **67%** of policies permit upper chest shots despite the manufacturer's warning moving the preferred target zone away from the upper chest.
- **70%** of policies do not instruct officers to consider the seriousness of the crime before deciding whether or not to use the Taser.
- **33%** policies do not specifically instruct officers to consider the risk of secondary impact of falling from an elevated surface subsequent to Taser use.
- **27%** of policies do not restrict Taser use on vulnerable populations such as juveniles, elderly individuals, or the visibly pregnant despite the increased risk associated with those populations.
- **100%** of policies fail to require that Tasers output be tested to ensure that the actual performance of the device is within manufacturer's specifications.
- **73%** of policies do not require an investigation that includes a data download from the Taser's memory chip after use to independently verify the number and duration of shocks delivered to the subject.

⁵ Addyston Village and The City of Norwood Police Department have not provided responses that would make it possible for them to be included in the results. Both employ ECWs capable of temporarily paralyzing subjects. Sycamore Township contracts with the Hamilton County Sheriff's Office for police support, and so Taser use policies and procedures employed in that jurisdiction will mirror those of the Hamilton County Sheriff's Office.

- **15%** of policies explicitly authorize officers to use their Taser on a fleeing subject, regardless of the crime or the threat to the public.
- **At least 16** of the agencies deploy Tasers that are older than their estimated useful life.
- Two agencies that deploy Tasers maintain no Taser-specific policy.⁶
- One agency deploys Tasers even though the agency’s policy prohibits their use.⁷

This paper sets out a standard of care that is well accepted by the law enforcement community nationally. Compliance with the standard delineated below will increase safety for both officers and subjects. A comparison of local law enforcement agencies’ policies to the standard of care is set out so the stakeholders in the community can assess the challenges we face in making Taser use more safe in Hamilton County. The paper concludes with recommendations for immediate policy changes and a recommendation that a county-wide task force be formed to create local standards for ECW policy and training so that ECW use in our communities can be as safe as possible.

How the ECW Operates

ECWs are often referred to as a “Tasers” after a leading manufacturer of the devices, Taser International. The most widely used device is the Taser X26, which is shaped like a handgun. When the trigger is depressed two barbs fire at the subject. The typical range of the weapon is 15 to 35 feet, depending on the cartridge that is selected. The barbs penetrate the subject’s skin or clothing and remain connected to the weapon by thin wires. The device delivers high voltage, low current electricity through the subject’s muscles in a manner that commandeers the subject’s skeletal muscles, causing temporary loss of control of those muscles. This phenomenon, termed “Neuromuscular Incapacitation” (“NMI”), allows officers to approach and subdue the subject, quickly ending the struggle.

The Taser X26 is programmed to deliver the electricity in five-second cycles, one at each depression of the trigger. The officer may deliver continuous shock to the subject by persistently depressing the trigger or may end the cycle by switching the safety switch to “on.” The Taser X26 can also operate in “drive stun mode,” where the user applies the device directly to the subject, causing severe pain at the impact point but not causing NMI.

Taser International has estimated useful life of the X26 to be 5 years. The weapon is designed to operate between the temperatures of -4 °F (-20 °C) to 122 °F (50 °C) and in a humidity of up to 80%. To accomplish NMI, the X26 delivers electricity in pulses. Taser has

⁶ The Village of Elmwood Place Police Department and the Wyoming Police Department.

⁷ The Village of Elmwood Place deploys approximately 4 Taser X26s despite those weapons not being authorized under its own policy, which states: “*Officers will only use those Less Lethal weapons issued and authorized by the Elmwood Place Police department. The Less Lethal weapons currently authorized are the ASP Baton, Oleoresin Capsicum (OC) Spray and the Shotgun Bean Bag Round.*” (emphasis in original). ELMWOOD PLACE POLICE DEPARTMENT POLICY AND PROCEDURE MANUAL at 5-14. See also *id.* at 5-25.

published the following “delivered” output specifications: 19+ 1/-2.5 Pulse Per Second (PPS) pulse rate (may be significantly lowered by low temperature and low battery); 105-155 μs pulse duration; 0.0020 to 0.029 s of total discharge time (at 19 PPS); 80-125 microcoulombs; 0.0015 to 0.0024 A average current; 0.095 to 0.125 Joules energy per pulse; 1.8 to 2.3 Watts at (19 PPS); 1,400 to 2,520 Volts peak voltage. Taser has published the following “internal” output specifications: approximately 50,000 Volts arcing voltage; approximately 0.36 Joules energy per pulse; approximately 6.8 Watts power.

Methodology for This Report

On July 27, 2012, the law office of Gerhardstein & Branch mailed a public records request pursuant to Ohio Revised Code § 149.43 to every local law enforcement agency in Hamilton County.⁸ Every opportunity was given to the agencies to respond; multiple phone calls were placed to non-responding agencies to ensure those agencies were aware of the request, clear on what information was sought, and were able to fill it. Once the responses were received, the information was analyzed and organized into a chart that could readily display which agencies’ policies reflect the current standard of care for safe ECW use.

The standard of care that Gerhardstein & Branch is using was developed by combining multiple model policies and recommended Taser use guidelines including Taser International’s training materials and Taser use guidelines published jointly by the Police Executive Research Forum and the U.S. Department of Justice Office of Community Oriented Policing Services (“2011 PERF Guidelines”).⁹ The standard of care is addressed separately below.

Most important to the goals for this paper are the unique and serious risks associated with NMI. Accordingly, the ECWs deployed in Drive Stun mode are not addressed.¹⁰ The term “ECW” in this review is used to describe electronic control weapons generally,¹¹ whether capable of inducing NMI or not. “Taser” refers to the Taser M26, X26, or the newer model X2, all of which can deploy barbs and cause NMI. Thus, any statistics listed in this review, unless specifically otherwise noted, refer only to agencies that deploy an ECW capable of NMI. Currently all ECWs deployed in Hamilton County capable of NMI are manufactured by Taser International. At least 32 of the responding agencies use the Taser X26. One agency has

⁸ A copy of the request is attached as Appendix C. Public records requests were not pursued with the University of Cincinnati Police Department and the City of Cincinnati Police Department as those policies were already available to the firm.

⁹ See POLICE EXECUTIVE RESEARCH FORUM & COMMUNITY ORIENTED POLICING SERVICES U.S. DEPARTMENT OF JUSTICE, 2011 ELECTRONIC CONTROL WEAPON GUIDELINES (2011), <http://www.policeforum.org/library/use-of-force/ECWguidelines2011.pdf> (last visited Sept. 13, 2012). PERF originally published a set of ECW guidelines in 2005.

¹⁰ Repeated drive stuns without justification can be torture but that issue is not pursued in this paper.

¹¹ Taser International refers to such weapons as electronic control devices, or “ECDs.” Such weapons are also sometimes called conducted energy devices (“CEDs”).

upgraded to the Taser X2, a later generation ECW with some new features,¹² but still utilizes the same basic technology to create NMI. One agency still deploys the older model M26, but that model also uses the same basic technology to create NMI. Therefore, “Taser” is used to refer only ECWs capable of inducing NMI.

Each column of Appendix A represents one specific aspect of an agency’s policy and procedures. Broadly, the chart provides a snapshot of each agency’s policies towards (a) authorized use of the Taser, (b) procedures for medical treatment and investigation after Taser use, (c) frequency and quality of Taser training, and (d) Taser maintenance. Local ECW policies vary widely in form and substance. Therefore, clear definitions are imperative to comparing the policies and determining if they align with model Taser practices.

Definitions of some terms describing the agency’s policy regarding each particular column were formed to present the information in an easily digestible format:

D/S: “Drive stun” mode.

General Factor: The particular situation or circumstance surrounding a use of force may be considered as a factor under the general use of force policy, but it is not specifically addressed within the Taser-specific policy.

Explicitly Permitted: Taser use is explicitly permitted in that particular situation. This term is used to distinguish the concept that Tasers will be permitted in many scenarios where they are not expressly banned or restricted. For example, some policies explicitly permit officers to use a Taser to stop someone fleeing from questioning. In other policies this topic may be “Not Addressed.” That is, the scenario simply is not discussed in that Taser policy. On a fair reading of many of those policies, officers would actually be permitted to use their Tasers.

Forbidden: Taser may not be used in that particular situation.

Not Addressed: The particular consideration or situation was not addressed or mentioned in the policy.

Not Provided (NP): The information was requested and was not received.

Not Requested (NR): The information was not requested.

Restricted: Use of the Taser in this situation or on this class of individual is restricted to limited circumstances and should generally be avoided.

¹² One of these features Gerhardstein & Branch welcomes. The X2 has a “Pulse Calibration System” which Taser International claims can continually monitor and adjust the weapon’s electrical charge output, thus ensuring the specified electrical output (and not more) is delivered to the subject. The problem with a failure to test a Taser’s output is addressed below in the Standard of Care section.

Restricted to DFS: Taser use in this situation or on this class of individual is only allowed if the circumstances have escalated to a point where use of deadly force against the individual would be justified.

Restricted < (#): Taser use is restricted when the subject is younger than the age following the < sign.

Restricted > (#): Taser use is restricted when the subject is older than the age following the > sign.

Taser Use Factor: The particular situation or circumstance may specifically be considered as a factor in whether or not to use the Taser.

TI v. __: Many agencies use training materials provided by Taser International. “TI v.” followed by a number indicates that the agency uses Taser International-provided training materials and the number indicates the version it uses. For agencies that simply responded that it used “the latest version of materials from Taser” or similarly, the chart will reflect “TI v. 18,” as that is the most recent version.

Chest Shot Policy Comply w/ Preferred Target Zone: “YES” appears for any policy that complies with Taser International’s recommended target zone when firing the Taser at the front of the subject (upper chest area to be avoided). “No” appears for any agency that lists a contradictory preferred target area. “NO – Not Addressed” appears for any agency’s policy that either does not list a preferred target area or purports to incorporate its training material’s preferred target area by reference.¹³

Use of Force Continuum Placement (lowest permissible use): This column refers to the placement of Tasers within the agency’s use of force continuum and records the lowest level of suspect behavior against which Taser’s use is authorized. Agencies’ policies varied so widely on this topic that the only practical way to compare them was to compare the policies to the standard of care. The standard of care dictates “Tasers should not be authorized as a response unless the subject is demonstrating active aggression or is actively resisting in a manner that is likely to result in injury to the suspect or others.” Despite linguistic variances, agencies’ policies were analyzed to determine if they authorized Taser use only against that level of suspect behavior or above. If an agency generally authorizes use against subject behaviors that were below the standard of care or if in any place of the policy the agency gave an example of an appropriate situation for Taser use that fell below the standard of care, that policy was labeled “Below Std. of Care.” The other possible classifications are “Meets Std. of Care” and “Not Addressed.”

¹³ As discussed below in the Standard of Care section, where the barbs strike the subject can greatly increase or decrease the risk of death or serious injury. Policies should explicitly state the preferred target zones.

Multiple/Extended Cycle: This column addresses only whether the policies restrict officers' authorization to use multiple or extended cycles against subjects in some way. "Restricted" will appear if use is restricted in some way, such as requiring each cycle to be independently justified or recommending the officer use a different force option after a certain number of cycles. "Not Addressed" will appear if the policy makes no mention of multiple or extended cycles. "Permitted" appears if an agency's policy specifically addresses multiple or extended cycles without instructing the officer to reevaluate the situation, consider the 15 second application threshold (discussed in Standard of Care section below), or allows simultaneous applications by more than one Taser.

Medical Treatment after Taser Use: "Discretionary" will appear if it is within the officer's discretion whether or not to request medical treatment for the subject, or if medical treatment is required only at the subject's request. "Required" will appear if medical personnel must evaluate the subject any time the weapon is used on a subject, whether that be by emergency medical responders or at an emergency department. "Not Addressed" appears where an agency's Taser use policy does not explain under what circumstances a subject must receive medical treatment.

Must Report Incident after Taser Use: This column tracks which agencies require every use to be reported. "Yes" appears for agencies that require Taser use be reported. "Yes, (inc. accidental)" appears for agencies that explicitly require accidental Taser discharges to be recorded. "Not Addressed" appears for agencies that do not state whether each Taser use must be reported.

Investigated After Deployment: This column evaluates whether supervisors must investigate every Taser use. "Yes" appears if a supervisor must investigate every Taser use. "Discretionary" appears if the agency requires that supervisors be notified of Taser use, but whether to investigate the use is in the supervisor's discretion. "Not Addressed" appears if that is not addressed within the agency's Taser use of force policy.

Risk of Fall/Subject on Elevated Surface: This column displays whether an agency's policy specifically restricts use against subjects who are on an elevated surface or are otherwise at risk of suffering secondary injury caused by a fall due to their location (such as on top of a fence or on a roof). Accordingly, if the policy specifically restricts use under those conditions, "Restricted" will appear. If the policy contains more vague instructions, such as "location of the subject should be considered" or "officers should assist subject to the ground where possible," without warning of the risk of injury secondary to a fall from an elevated surface, "Not Addressed" will appear.

Known/Obvious Pre-existing Conditions: "Restricted" appears for any policy that restricts Taser use on subjects with *any* known pre-existing conditions. Policies that do

not instruct officers to account for any known or obvious pre-existing conditions “Not Addressed” appears.

ECW Weapons Classification: “Non-Lethal” will appear for any policy that refers to ECWs as both Non-Lethal and as Less-Lethal Weapons. “Less-Lethal” will appear for policies that only refer to ECWs as Less-Lethal. “Undefined” appears for those agencies that do not classify the ECW.

Finally, many agency policies contain a blanket statement that instructs officers to use the weapon only in accordance with the manufacturer’s recommendations. It is highly unlikely that an officer will compare Taser International’s materials with the agency’s policy before using the Taser and, for example, follow Taser International’s recommendations on how long a Taser may safely be used on a subject rather than following the officer’s own agency’s Taser policy. Such overbroad statements were not considered.

Taser Use Standard of Care

To develop the standard of care set out below, Gerhardstein & Branch referred to the best practices and recommendations of several nationally recognized organizations.¹⁴ Each agency that deploys a Taser should also have a separate, written policy specifically discussing Taser operating procedures that addresses the weapon’s unique aspects. An agency’s Taser use and its use of force policies are vital to officers’ understanding of the risks of Tasers. Policies set the standard of care for the officers and establish the permissible range for Taser use. Taser-specific policies and procedures should address four subjects: (a) Taser Use Policies and Procedures, (b) Post-Taser Use Policy and Procedures, (c) Taser Training, and (d) Taser Maintenance.

a. Taser Use Policies and Procedures

The agency’s Taser policy should not categorize Tasers as a “non-lethal weapon.” In fact, Taser use can lead to serious injury and death. Officers should not be lulled into unsafe practices by using labels that cause less vigilance associated with their Taser use.

1. Targeting Zones

Policy should reflect the Taser International recommended targeting zone, which instructs officers to aim for the lower center of mass (below the chest) if shooting at the front of the person and below the neck if aiming from behind the person.¹⁵ Tasers can capture the heart’s rhythm, leading to ventricular fibrillation and death. Research has shown that the primary factor

¹⁴ Generally, the standard of care was developed with research and recommendations found in the following resources: 2011 PERF Guidelines, *supra* note 9; AMNESTY INTERNATIONAL, *supra* note 4; AMERICAN CIVIL LIBERTIES UNION OF MINNESOTA, SHOCKING: THE LACK OF RESPONSIBLE TASER POLICY IN MINNESOTA (2011); and Taser International’s product warning and training materials, available at <http://www.TASER.com>. Other materials used will be cited separately.

¹⁵ See, e.g., Taser International, Training Bulletin 15.0 Medical Update and Revised Warnings at 2 (Sept. 30, 2009).

in capturing the heart's rhythm is the barb-to-heart distance, and as that distance decreases, the risk increases.¹⁶

The policy should also instruct officers to avoid barb contact to the groin, neck or head area, or other sensitive areas such as the location of pre-existing injuries. Contact with such areas can cause painful physical damage, and there have been reported incidents where individuals have suffered seizures after being struck in the head with one or both barbs.

2. At-risk Populations

Several populations have been identified as particularly susceptible to death or serious injury from Tasers. Agency policy must dictate that officers use extreme caution when deciding to use a Taser against a member of one of those classes. Policy should instruct officers not to use a Taser against the following classes of individuals unless the situation rises to a deadly force situation:

- (A) Juveniles, the elderly, pregnant females, and those with low body mass because of the increased risk of injury resulting from falls or the increased risk of heart rhythm capture;
- (B) Persons restrained because Taser use has been shown to affect respiration, thus increasing the risk of positional- or restraint-related asphyxiation. Persons restrained are also much more limited in their capacity to catch or brace themselves, so risk of serious injury or death from secondary impact is greater;
- (C) Persons with known or obvious health conditions including, but not limited to, heart disease, osteoporosis, seizure disorders, or neuromuscular disorders, or implanted medical devices because of increased risks associated with those diseases and Taser use;
- (D) Persons exhibiting symptoms of “excited delirium”¹⁷ or drugs and alcohol use because of the increased risk of death associated with Taser use on these populations. If Tasers are used on these individuals, medical assistance should immediately be sought;

¹⁶ Zipes, *supra* note 2; Taser International, *supra* note, 15 at 8. Taser International maintains that its products are safe if used properly.

¹⁷ Excited delirium is not an accepted medical or psychological diagnosis and its existence as a condition is disputed among medical and mental health professionals. The term can be useful, however, in describing a cluster of symptoms and behaviors, and many law enforcement agencies describe its signs in their policies on dealing with the mentally ill or persons who have ingested on drugs. Many individuals who died after being subjected to Taser use were also exhibiting signs of these symptoms that are described as excited delirium. So, persons exhibiting signs of excited delirium should be a class against which Taser use should be strictly limited to a deadly force situation. For more information, *see* AMERICAN CIVIL LIBERTIES UNION OF MINNESOTA, *supra* note 14.

(E) Persons attempting to swallow evidence because of increased choking risk if incapacitated while doing so. Although not included in any of the model policies, reports of these incidents are surfacing. Law enforcement officials, medical professionals, and other interested parties should confer and determine the best practice regarding this issue.¹⁸

3. Risk of Secondary Impact

Risk of injury resulting from secondary impact after Taser use is increased to a much greater extent than with other less lethal force options because subjects can completely lose control of their voluntary muscles. Subjects may fall from an elevated surface, fall while running at high speed, may drown, or crash a vehicle under their control, for a few examples. Taser policy should reflect these unique risks by specifically restricting use to situations that have escalated to a deadly force situation.

This aspect of the policy should restrict use only to a deadly force situation against those on elevated surfaces, those fleeing from anything other than a serious and dangerous felony and who pose an immediate risk to public safety, those in or near water and at risk of drowning, those in control of an automobile or other vehicle capable of substantial movement if not under someone's control (such as bikes or wheelchairs).

When warning of risk due to secondary impact the policy also should include a "catchall" provision because of the myriad scenarios in which an individual could be seriously injured or killed if he or she were to become temporarily paralyzed. That provision should restrict to a deadly force scenario Taser use if the surrounding circumstances would lead a reasonable person to believe that use on the subject under that set of circumstances would pose a substantial risk of serious injury or death.

4. Risks of Fire and Explosion

The electrical current delivered by Tasers is capable of igniting flammable materials. Policy should reflect this risk by banning Taser use when flammables are known or are suspected to be present. The policy should specifically warn that some chemical irritants, colloquially referred to as "mace" or "pepper spray," may contain flammable chemicals and Taser may not be used if a chemical irritant has already been used. Taser use should also be banned within suspected "drug" houses or houses in which ether is suspected of being present in order to prevent ignition of flammable vapors that may be present.

5. Other Considerations Unique to Tasers

¹⁸ One such individual was Andrew Grande, 23. Mr. Grande was attempting to swallow a bag of marijuana when officers used a Taser on him. Grande later died as a result of choking on the bag. Carlin DeGuerin Miller, *Gay Porn Star Andrew Grande Dies After Trying to Swallow Pot, and Getting Tasered Didn't Help*, CBSNEWS, Dec. 15, 2009, http://www.cbsnews.com/8301-504083_162-5981902-504083.html?tag=contentMain;contentBody (last visited Sept. 27, 2012).

(A) Extended/Multiple Cycles – policies should instruct officers to operate the Taser through one five-second cycle (or less) while they attempt to control and cuff the subject. Officers must then reevaluate the situation to determine whether a second cycle is necessary, and each individual cycle must be independently justifiable as a use of force. Officers must be made aware that during and shortly after the energy cycle the subject likely is not “resisting” but completely unable to comply with or even comprehend demands. Subjects might experience a “post-Tase-daze” for a short time and must be given a chance to comply once the subject is again cognizant of the situation.¹⁹ The two most likely predictors of whether a subject will die after Taser use are if the subject was shocked repeatedly or for an extended duration. Policies should also make officers aware of the increased risk of death associated with exposures of more than 15 seconds – whether consecutive or cumulative. For the same reasons, policy should restrict or ban the use of two or more Tasers being deployed against an individual at one time.

(B) Officer Warnings – policy should instruct officers to warn the subject and other officers when Taser use is imminent unless doing so would put another individual at risk. The purpose is three-fold. First, the Taser closely resembles a handgun and announcing the weapon as a Taser will reduce the likelihood that anyone mistakes it for a gun and responds inappropriately. Second, announcing an officer’s intention to use the Taser will reduce the likelihood that other officers make the same decision, thus reducing the chance that multiple Tasers are used against an individual at one time. Third, announcing an impending deployment will cause many suspects to surrender and avoid the use of force altogether. Agencies should also consider deploying brightly colored Tasers to further reduce the risk that a Taser is mistaken for a gun.

(C) Level of Offense Should Be Considered – because of the unique and serious risks associated with Taser use, policies should instruct officers to consider the nature and seriousness of the suspected crime as a factor before deciding whether or not Taser use is necessary.

(D) Control and Cuff Under Power – policies should clearly instruct that if the situation allows, back-up officers should be placed in an appropriate position surrounding the subject to allow them to control and cuff the subject under power.

¹⁹ See Ron Martinelli & Jerry Staton, *The Forensic Force Series: Psychophysiological Responses to TASER-ECD Influence*, 10 Law Enforcement Executive Forum 101 (2010). Not only might subjects be unable to comprehend instruction during and shortly after Taser application, but subjects might also experience an involuntary “Pain/Escape Response (PER).” It is postulated that the brain’s survival instinct orders the body to escape from the immense pain caused by NMI. In Dr. Martinelli and Mr. Staton’s study, 54% of subjects experienced PER, and 13% experienced “panic, confusion, and a loss of all rational thought,” *id.* at 104. Thirty-nine percent of subjects reported a difficulty or complete inability to comprehend instructions, and 87% of subjects suffered either difficulty or a complete inability to perform physical tasks. *Id.* at 109-111.

This increases the likelihood that a subject will be controlled within one five-second Taser cycle and decreases the likelihood that subsequent cycles will be necessary. This aspect of the policy should include information that it is safe for officers to handle suspects experiencing NMI, so long as they take care not to make contact either with the barbs or with the subject in between the barbs, where the circuit runs.

(E) Use of Force Continuum Placement – placement of Tasers on agencies’ use of force continuum should reflect the increased risk of injury to the subject.

Accordingly, Tasers should not be authorized as a response unless the subject is demonstrating active aggression²⁰ or is actively resisting²¹ in a manner that is likely to result in injury to the suspect or others. The policy should ban Taser use on compliant or unconscious subjects, against whom there is no justification for use.

(F) Personal Weapons – personal Tasers should be discouraged. If the agency allows personally owned Tasers or other ECWs capable of NMI, they should be subject to the same standards under agency policy, including training and maintenance standards.

(G) Routine Data Downloads and Review – policies should require supervisors to download every Taser’s stored usage data once every three months. This data should then be reviewed for any unreported or suspicious Taser use as well as for general trends in Taser use. Each Taser contains an internal memory card that logs data about the weapon’s use. Review of this data will ensure that officers are using their Taser appropriately and that every use other than daily spark tests, including accidental discharges, are reported. For officers and departments that are inappropriately using their Tasers, this will allow for early intervention and correction.

b. Post Taser Use Policies and Procedures

Agency policy should make clear that emergency medical services (EMS) must be called to the scene after any use of a Taser to evaluate the subject for any physical injuries and for heart or breathing abnormalities. Before paramedics arrive, officers should be prepared to deliver necessary medical attention, such as CPR, to sustain the subject’s life if necessary until EMS can arrive. Officers must inform the medical personnel the circumstances surrounding the

²⁰ 2011 PERF Guidelines defines active aggression as: “A threat or overt act of assault (through physical or verbal means), coupled with the present ability to carry out the threat or assault, which reasonably indicates that an assault or injury to any person is imminent.”

²¹ 2011 PERF Guidelines defines active resistance as: “A subject’s physical actions to defeat an officer’s attempt at control and to avoid being taken into custody. Verbal statements alone do not constitute active resistance.”

deployment so that the medical personnel may inspect the subject for secondary injuries. Where possible, EMS should be notified in advance when Taser use is probable.

Any subject that experienced a Taser application greater than 15 second, whether continuous or cumulative, should be transported to an emergency department for medical evaluation. Barbs that have penetrated the subject's skin should only be removed by personnel trained to do so. Barbs that have penetrated a subject's sensitive areas or are difficult to remove should only be removed by medical personnel. All subjects exposed to a Taser should be regularly monitored once in police custody even if they have already received medical care.

Agency policy should require that any discharge of a Taser must be reported, including accidental discharges. Any time a taser is used on a subject it must be investigated fully by a supervising officer. A proper Taser Use of Force report and supervisor-led investigation will capture information and document evidence that will enable review of the incident to ensure that Tasers are being used in appropriate situations and in a safe manner.

The officer's Taser Use of Force Report should require the following information: (1) date, location and time of the incident; (2) whether the officer verbally warned, "laser painted"²² the subject, or used arcing²³ and the effects of these tactics; (3) the type and brand of ECW used; (5) the number and duration of activations used; (6) the level of aggression the officer encountered; (7) any weapons possessed by the subject and whether those were visible prior to Taser use; (8) the suspected crime involved in the incident; (9) a determination whether deadly force would have been justified; (10) the type of clothing worn by the subject and the barb's success penetrating that clothing; (11) distance from the subject when the Taser was fired and the type of cartridge used; (12) whether the suspect was believed to be under the influence of drugs or alcohol or experiencing excited delirium; (13) the environmental factors including lighting conditions, terrain and weather conditions; (14) any injuries incurred by the subject or officer; and (15) the medical care provided to the subject.

Agency policy should require the supervisors to collect all relevant and appropriate forensic evidence. Examples of appropriate forensic evidence should include: (1) the ECW cartridge, barbs, and wires; (2) Anti-felon Identification Devices ("AFIDs");²⁴ (3) a data download of the Taser that was used; (4) any audio and video of the incident; (5) photographs of any injuries to the subject caused from direct impact of the Taser barbs and subsequent use (may include burns)

²² "Laser Painting" is aiming the laser sight affixed to the Taser at the subject's body. This is a visible demonstration that the officer is serious about using the Tasers and has taken aim at the subject.

²³ "Arcing" is displaying an electrical arc on the Taser, which is another visible warning that can be given to the subject.

²⁴ Each Taser cartridge automatically releases 20-30 AFIDs containing the cartridge's serial number when the cartridge is fired. This was originally included as a feature of Tasers to help prevent illegal use of the weapon because they help identify the purchaser of the cartridge. AFIDs also can help identify the officer(s) who used their Taser(s).

and of any secondary injuries (such as from a fall); (8) photographs and diagrams of the incident scene; (7) a diagram that documents where the barbs struck the subject; (8) statements from all available witnesses, any involved officers, and the subject, if possible.²⁵

c. Taser Training

Clearly, no officers should be authorized to carry a Taser unless they have undergone initial training on the weapon. Certified officers' training should be supplemented at least once a year to train officers on updated research and practices. As a weapon that launches projectiles, annual training must also include operational and situational components. Tasers should be worn in a weak-side holster. To reduce the risk of accidentally drawing and firing a sidearm, officer must practice either a weak-hand draw or a cross-draw. Officers should be allowed to transition to their dominant hand before firing their Taser. If an agency uses more than one model Taser, the differences between the models must be highlighted so that each officer knows the limitations of each device, particularly of the differences in standard cycle and cycle shut-off.

Agencies should not rely solely on training materials offered by the weapon's manufacturer. Taser International has compiled considerable information on the weapon's capabilities and associated risks and routinely supplies training materials to agencies. But law enforcement officials should not defer to a private party whose interests are not necessarily aligned with those of the agency or the public. Accordingly, each agency should review training materials, national standards, and their own general use of force and Taser policies to ensure that officers are receiving adequate training on the weapon.

d. Taser Maintenance

Routine maintenance is essential for a properly functioning weapon. Policies should ensure that output of the Taser is routinely measured to verify the device is operating within manufacturer's specifications. Research has indicated that some Tasers may deliver a higher electrical current output than indicated in the manufacturer's specifications.²⁶ Older weapons and those not daily spark tested appear to be more likely operate outside of the manufacturer's

²⁵ See Report of Expert Rebuttal Witness Ron Martinelli, Ph.D., BCFT, CFA, CLS, *Peabody v. Perry Township*, Case No. 2:10-cv-01078-EAS-MRA Doc., at 16-18 (S.D. Ohio Feb. 17 2012).

²⁶ PIERRE SAVARD, ROBERT WALTER, ANDREW DENNIS, ANALYSIS OF THE QUALITY AND SAFETY OF THE TASER X26 DEVICES TESTED FOR RADIO-CANADA/CANADIAN BROADCASTING CORPORATION BY NATIONAL TECHNICAL SYSTEMS, TEST REPORT 41196-08.SRC (2008), <http://www.cbc.ca/news/pdf/taser-analysis-v1.5.pdf>; for more information and a statement on the report from Taser International see *Some Tested Tasers Fire Stronger Current than Company Says: CBC/Radio-Canada Probe*, CBCNEWS, <http://www.cbc.ca/news/canada/story/2008/12/04/taser-tests.html> (last visited Sept. 14, 2012).

specifications.²⁷ Routine spark testing and measuring of each unit's output will greatly reduce the risk that an improperly functioning Taser will be used on a subject.²⁸

Tasers should always be stored with their battery pack inserted and officers should prevent exposure to extreme weather conditions or excessive moisture. Any Taser that must be returned to Taser International for service or repair must have its data downloaded prior to shipment. Any Taser cartridge over five years old is considered expired and should be used only for training. Tasers must always be stored with the safety switch in the "on" position.

Prior to each shift, officers should check the life of the battery pack via the digital display on the back of the weapon to verify that there is sufficient battery life for field use. Officers also should conduct a daily one-second spark test to ensure the weapon is operational.

Major Findings

Agencies' policies vary greatly in their treatment of the Taser use – a predictable, but perilous result. The consequence is a community full of officers who may or may not have been properly trained to use this dangerous and unique weapon. To confound the problem, the policies of the agencies that employ those officers may authorize them to use the Taser in a more risky manner than current standards allow. Below is a summary of the major findings of the review.

a. Taser Use Policies and Procedures

Many agencies inconsistently describe under which circumstances Taser use is authorized. An agency might generally authorize the weapon's use against "violent or potentially violent subjects, or when the officer reasonably believes it would be unsafe to approach the subject," but in other portions of the policy it describes the weapon as a "tool" to control "non-compliant" individuals. This internal conflict sends mixed messages to officers and can lead to improper use of the weapon. Would the officer be permitted to use the weapon on someone who refuses to stand up but is otherwise peaceful because that subject is "non-compliant?" If so, that policy allows improper Taser use in that situation. An officer should not have to resolve internal policy conflicts in the midst of a rapidly evolving situation.

A concern with Taser use that is not present in perhaps any other weapon available to officers is that it causes the subject to lose motor control. Injury then occurs as the natural result of the subject's temporary incapacitation. Accordingly, Taser policies must very specifically address this novel effect to minimize unnecessary injury. Perhaps most common of these injuries is trauma after the subject falls from an elevated surface. Thirty-three percent of agencies make no

²⁷ SAVARD, *supra* note 26 at 6-8.

²⁸ As previously noted, the newest generation Tasers automatically test and adjust output. See *supra* note 12. However, even the newest generation models should still be independently tested to ensure output readings are accurate.

mention of this risk or limit Taser use against such individuals whatsoever. Seventy-three percent of agencies do not restrict in any way Taser use against those in control of a vehicle or device capable of movement. Agency policies must anticipate these scenarios and restrict use on such individuals.

Another concern for Taser use is the at-risk populations that must be identified in an agency's Taser policy. The policy must instruct officers not to use Tasers on these populations unless absolutely necessary. However, nearly one-third of all agencies do not restrict Taser use in any way on these at-risk populations: juveniles, the elderly, pregnant females, persons who are restrained, and those who are visibly frail or who have low body mass index. Only 12% of agencies restrict use on individuals with known pre-existing medical conditions that increase the individual's risk of serious injury or death, such as a heart condition. Some agencies' policies expressly instruct officers to use Tasers on subjects exhibiting excited delirium. Some people who have died after being subjected to a Taser were exhibiting signs of excited delirium. The risk is simply too high that an individual will be killed, and use on this population must be a last resort and restricted to a deadly force situation.

b. Post Taser Use Policies and Procedures

Every agency but two explicitly require that Taser use be reported, although only roughly half require that accidental Taser use also be documented. Nearly 75% of agencies require a supervisor-led investigation following a Taser use. Unfortunately, only approximately 75% of agencies require a download of the deployed Taser's data to verify the number and duration of shocks delivered. To ensure officers are following protocol, data should be regularly downloaded and reviewed for any anomalous or unreported discharges. Only 6% routinely download and review this data.²⁹ Clearly, there is room for improvement in reporting and post-deployment investigation.

Prompt medical attention is critical to detect any heart or breathing abnormalities or latent injuries caused by the environmental factors surrounding the Taser's use. What treatment is required, if any, must be determined by trained medical personnel. Currently, 17 agencies require that any person subjected to Taser be evaluated by medical personnel, while 16 leave it to the officer's discretion whether the subject requires medical attention, only require medical attention if the subject requests it, or do not address the subject at all.

c. Taser Training

Every agency uses training materials from Taser International. As noted, that is not entirely bad. However, it appears that only about one-third of the agencies supplement Taser International's materials with its own to ensure that the training materials are in accordance with

²⁹ This was required under the Cincinnati Police Department's Taser policy every three months until its recent Taser policy update. For an undisclosed reason, the new policy has abolished that practice.

their own policies and procedures. The number one priority of an agency's training materials must be to perform their duties *safely*, not to persuade officers the Taser is safe. Perhaps as troubling, of the agencies that actually provided their training materials, 21% provided outdated materials from Taser International. It is unclear from the nature of many of the public records request responses how many agencies require yearly tactical and situation-based training.

d. Taser Maintenance

One shocking finding of this review is that not one single agency tests the electrical output of its Tasers despite the fact that at least 48% of agencies in Hamilton County use Tasers that are beyond their 5-year useful life.³⁰ The age of the Taser appears linked to its ability to maintain an electrical output within Taser International's specifications. If we are allowing our officers to use Tasers to course electricity through the bodies of our community members, albeit likely on those subjects' worst days, then we should demand that the agencies at least know how much electricity their weapons are delivering.

Nearly one-third of agencies' Taser policies do not establish routine maintenance requirements. Tasers must be cared for so that if the decision to use them is made, they will work properly. If a Taser somehow malfunctions it could greatly exacerbate the situation, leading to a more hostile confrontation between the subject and the officer. It is recommended that agencies without a written maintenance policy develop one, and that all policies require daily spark tests to increase the likelihood that the weapons operate within Taser International's specifications.

Recommendations

Local law enforcement agencies should immediately correct obvious deficiencies in their policies and training. Chest shots should be banned except in deadly force situations.³¹ Consideration of the environmental hazards posed by Taser deployment (elevated surfaces, etc.), seriousness of the crime, the risk posed to officers and the public and whether the suspect is fleeing should be required before any Taser deployment.³² Agencies should regularly test their weapons and conduct thorough reviews after Taser deployments.

Local law enforcement agencies should confer and form a task force charged with bringing Taser use in Hamilton County up to the safest possible standards. The purpose of the task force

³⁰ The actual percentage may be much higher. Of the 33 responding agencies included in the review, the age of the oldest Taser owned by the agency could only be determined for 23 agencies. Of those 23 agencies, 16 deployed Tasers older than the 5-year useful life. Forty-eight percent assumes that every Taser owned by the other 10 agencies is within the 5-year useful life, but the actual percentage could be as high as 79%.

³¹ The City of Cincinnati recently took this step. This is a better practice than allowing chest shots but attempting to target the lower chest. Officers are trained to shoot their firearms at center mass which includes the upper chest. The training actually creates a "muscle memory" so that the aim is automatic when the firearm is drawn and pointed at the suspect. Attempting to adjust that muscle memory when a Taser is in hand is probably not realistic.

³² The City of Cincinnati has also recently amended its Taser policy to include this provision.

should be two-fold. First, the task force should create a model Taser policy that reflects current research and national standards on safe Taser use that each individual agency can then implement. Second, the task force should review training materials used by all agencies and establish a model curriculum that specifically warns of the dangers unique to Taser use and that trains officers how to address adequately these risks. Both goals – a model Taser policy and a model training curriculum – should be revisited once a year in order to incorporate updated research and safe practices.

A Taser task force as described above will serve multiple interests at a minimal cost. Taser use will become safer, which will lead to fewer injuries and deaths. Further, law enforcement agencies will increase the care with which officers use their Tasers. That will reduce potential civil liability and save local tax payers money.

Further research on Taser use in Hamilton County could analyze Taser Use of Force reports to compare how well past incidents have been documented, how closely officers adhere to their agency's Taser use policy and how that compares to the national standards. A study of that nature could reveal deficiencies in training curricula and policies and would better inform the discussion of how to make Taser use safest in our community.

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