

**The Bill Blackwood
Law Enforcement Management Institute of Texas**

=====

**Use of Force:
The TASER Option**

=====

**An Administrative Research Paper
Submitted in Partial Fulfillment
Required for Graduation from the
Leadership Command College**

=====

**By
J. L. Morrison**

**Harris County Sheriff's Office
Houston, Texas
July 2006**

ABSTRACT

Should TASERS be added to the use of force continuum? Police use of force, what is it? Some levels of force listed on various use of force continuums do not even actually involve physical force. With numerous force options available to law enforcement officers, should another force option be added? The problem is that there has to be something available for officers to use that will immediately incapacitate an uncooperative or combative person, when the use of deadly force is too much. Some of the current options available can cause serious injury or death to the suspect and frequently the officer is also injured. Not to mention that the other options generally do not cause an immediate incapacitation.

The methodology used to complete this research paper included a review of various newspaper articles, both for and against the use of TASERS, police policy regarding the use of force, TASER USAGE data provided by a large law enforcement organization, technical and training data provided by TASER International and personal experience. Early versions of the TASER do not appear to have had much of a benefit for the law enforcement community. The most current versions of TASERS have had a very positive impact on the law enforcement agencies that have included them in the use of force continuum. Officer injuries, officer involved shootings and suspect injuries have all decreased for some of the agencies that are now using the TASER. Some human rights organizations believe that TASERS should not be utilized by law enforcement agencies because of the ease at which they think TASERS can be abused. This author does believe that TASERS should be used by field officers and that more agencies will implement the TASER as a part of their use of force continuum.

TABLE OF CONTENTS

	Page
Abstract	
Introduction.	1
Review of Literature	2
Methodology	8
Findings	9
Discussions/Conclusions	13
References	14

INTRODUCTION

The phrase, “*use of force*” is rather ambiguous. There are two levels in the use of force continuum that do not utilize physical force at all. The levels that this author is referring to include: officer presence and verbal commands. The levels then increase to actual physical force, which include: a soft, empty hand, a hard, empty hand, the use of intermediate weapons, the use of impact weapons and deadly force. Within each of these categories there are many different devices or weapons that may be used. This researcher would like to consider whether or not there should be a new weapon or tool included with the many that are already in use today and if so, where should the new weapon or tool be placed on the ladder of force.

The subject regarding the appropriate use of force is one of the more controversial aspects of law enforcement. The local network news and newspapers are constantly deliberating over the law enforcement profession’s proper or improper use of force. There are many Monday morning quarterbacks willing to judge whether or not excessive force was used. Even though the use of police force may not actually be a problem, the media and other special interests groups can make it a problem.

Why should law enforcement include the TASER as an acceptable use of force? Could the beating of Rodney King and the subsequent riots in Los Angeles been avoided. Had the current model of TASER been available, this author believes so. Rodney King is a black male who fled from Los Angeles police in a motor vehicle after police tried to stop him for a traffic violation. At the end of the vehicle pursuit Rodney King refused to comply with officers’ commands and was tased. The TASER was ineffective. Police then used their batons to subdue Rodney King. The use of the batons was captured on video. This video taped use of the batons caused outrage among many across the world. The subsequent

charging of police with assault and their acquittal in state court sparked of the Los Angeles riots. The TASER used on Rodney King was an earlier version that only delivered seven watts and was a pain compliance weapon. The TASER X26 and M26 deliver 26 watts and 50,000 volts. The TASER X26 and M26 are not pain compliance weapons; they are an electrical muscular disruption device. The Bureau of Alcohol Tobacco and Firearms (ATF) classifies it as a conducted energy weapon.

The purpose of this research is to provide factual data to law enforcement agencies hoping to provide an additional level of force on the “use of force” continuum. As aforementioned, this researcher would like to consider whether or not there should be a new weapon or tool included with the many that are already in use today and if so, where should the new weapon or tool be placed on the ladder of force.

The author’s method of inquiry will include several newspaper and magazine articles, training material from TASER International, medical studies, statistics from law enforcement agencies that have implemented the TASER and a survey. This survey will inquire whether or not the participating officer’s agency allows the use of the TASER, if so how long they have used the TASER, if the TASER is in full field deployment, what other types of less-lethal weapons are available for use at their agency, etc. The method of inquiry will also include the author’s personal knowledge as a student of the TASER operator and instructor course.

The anticipated findings from this research should propose that law enforcement agencies should allow the use of the TASER. The research may suggest that the TASER should be a mandatory weapon and may also determine that it should be placed between the *soft empty hand* and the *hard empty hand* on the “use of force” continuum.

Numerous law enforcement officers, their agencies and their respective local governments could benefit substantially from this research. Some of the benefits may

include: information on reduction of officer and citizen injury rate, employee 'lost-time' reduction, lawsuit reduction rates and a decrease in the use of deadly force.

REVIEW OF LITERATURE

The inventor of the TASER is Jack Cover. Jack Cover was a chief scientist for NA.S.A. who invented the TASER as a response to President Johnson's Blue Ribbon Commission's call for non-lethal weapons. The TASER was originally developed between the years 1966 through 1974. TASER is a brand name and unofficially stands for Thomas A. Swift's Electric Rifle. It is named after the boyhood hero in Thomas Appleton's 1910-1941 Tom Swift book series. The generic term for these weapons is conducted energy weapon. During the original development stages, it was discovered that short duration, high energy, predominately direct-current pulses were non-injurious and non-lethal. It was also discovered that these short duration, high energy, direct-current pulses had a profound physiological and psychological effect upon both humans and animals. In 1974 the first generation TASER was introduced. It utilized a seven watt pulsed energy discharge to stun the target. The stun effect stimulated the nervous system with an electrical interference, which usually caused the target to submit because of the pain or discomfort felt. The seven watt system had an effective rating of 33% to 86%. People who were under the influence of drugs or alcohol (central nervous central depressants) and persons who were highly motivated were sometimes able to fight the effects of the first generation weapon.

In 1995, TASER international introduced the second generation TASER. It too produced seven watts. This particular model was dubbed the AIR TASER 3400 series and the improvements include: a 50% reduction in weight and size, battery indicators and an automatic discharge timer. Although there were improvements to the physical

characteristics of the AIR TASER 3400 series, this newer model could still be defeated by persons who were highly motivated or under the influence of drugs or alcohol.

In 1999, the third generation TASER was introduced by TASER International. It was designated as the Advanced TASER M26. This new weapon was not like the two previous seven watt systems. The M26 Advanced TASER operated on 26 watts with a pulsed energy output known as elector-muscular disruption (EMD). This new model does not merely stun the suspect; it directly stimulates the muscles of the person it is deployed on. The muscle stimulation causes an uncontrollable contraction of the muscles. The EMD temporarily incapacitates the target regardless of the target's pain tolerance or mental status. This advancement moved the TASER away from a pain compliance device and is now an EMD device, which is more effective.

Thousands of volunteers from various military and police agencies received a hit from the M26 Advanced TASER. According to TASER International, these voluntary exposures resulted in a 99% immediate incapacitation rate. The volunteers were incapacitated in less than $\frac{1}{2}$ of a second.

The fourth generation TASER X26 was introduced in the year 2006. This newest and latest version of the TASER utilizes a shaped-pulse that transmits its energy into the central nervous system of the target, which causes an immediate, involuntary incapacitation. The previous models used a high-energy, blunt-pulse that lost 90% of its energy penetrating barriers of the target such as clothing and skin. Because of this energy loss, the previous TASER models required large batteries that added weight and size. The new, shaped-pulse technology resulted in a design that: is 60% smaller, 60% lighter and delivers 105 muscular disruption units.

So why should law enforcement agencies allow officers to carry the TASER? The main reasons are to save lives, reduce the amount of deadly force incidents, reduce officer

injury and to reduce liability. According to Sergeant Michael Harding (who is the TASER projector for the Los Angeles Sheriff's Department), the department did a study of closed lawsuits over a two-year period, which did not include ongoing lawsuits. (Tactical Response, 2003) Three high payout "use of force" lawsuits totaled \$2,500,000 were awarded to the plaintiffs in excessive use of force lawsuits.. This research study also looked at whether the use of a TASER might have been appropriate had one been available. In the three high payout cases, the successful use of a TASER might have saved lives and liability. The study also found that when a TASER was shown and sparked by an officer, or the laser dot was aimed at suspects, suspects gave up 33% of the time.

As of 2003, the Phoenix, AZ, Police Department is the largest law enforcement agency under full TASER deployment. Since full deployment in February of 2003, the Phoenix Police Department has seen a dramatic decrease in shootings and suspect injuries. Beanbag use (which is another less-lethal option utilized to subdue violent offenders) is also way down. The beanbag can be deployed with a standard 12-gauge shotgun or a 37/38 millimeter cannon. Commander Harry Markely encourages other law enforcement agencies to have full TASER deployment, saying that his department couldn't live without TASERS, they are that effective (H. Markely, personal communication, December 21, 2005). Sheriff Ken Beary of the Orange County, FL, Sheriff's Office reported that injuries to deputies have dropped 80% since his agency began using TASERS (H. Markely, personal communication, December 21, 2005).

During the 2003 TASER Tactical Conference, a medical discussion of various tests completed on sheep and pigs showed that the use of the TASER did not precipitate heart attacks or cause ventricular fibrillation. Additionally, Amnesty International has concerns about deaths and ill treatment involving police use of TASERS. Amnesty International claims to acknowledge the importance of non-lethal or less-than-lethal force options to

decrease the risk of death or injury that are inherent in the use of firearms or other impact weapons. However, the use of stun technology in law enforcement raises a number of concerns for the protection of human rights. Since TASERS are relatively compact, portable and easy-to-use TASERS have the ability to inflict pain without leaving any type of serious mark or noticeable injury to the suspect, these types of weapons may be utilized for abuse by dishonest officials, as Amnesty International claims to have documented numerous cases around the world.

Amnesty International goes on to claim that although U.S. law enforcement agencies stress that training and built-in safeguards (such as computer data ports that can record the time, date and duration of each TASER firing cycle) reduce the potential for abuse, these safeguards do not go far enough. They also claim that evidence suggests that the TASERS are being used not only to avoid lethal force situations, but also as a routine force option to apprehend non-compliant or disturbed persons who do not pose a serious danger to themselves or others. In these type of incidents Amnesty International claims that the use of TASERS appear to violate international standards prohibiting torture or other cruel and inhumane treatment.

The use of a device that produces a powerful electro-shock against unruly, disturbed, intoxicated, but non-dangerous persons, people who are non-compliant, but who do not pose a probable threat of serious injury to themselves or others, is an excessive use of force, according to Amnesty International. Amnesty International says that using such a shock could also be considered torture or cruel and unusual punishment. Amnesty International is also disturbed to note that some departments consider stun guns to constitute a low-level of force on par with other pain compliance techniques such as wrist locks and control holds. There are reports of stun guns being used for minor resistant behavior like prodding someone into a police car.

TASERS have been promoted as reducing liability against law enforcement agencies for excessive force on the grounds that they are less likely to cause injury than other more dangerous or lethal weapons. However, Amnesty International is aware of a number of lawsuits in which individuals claim to have sustained serious injury or trauma as a result of TASERS.

In an article by Lise Olson of the Houston Chronicle; increased use of new equipment training and rules can cut incidents (police shootings). Expand the use of less-lethal weapons such as batons, pepper spray and TASERS as alternatives. In an article by Roma Khanna of the Houston Chronicle; she says police being called to quick on the TASER'S trigger.

Victor Ross, who is the Chief of Police in Glendale, Colorado, writes an article in the *American Police Beat*, entitled, *Follow the Money for the Truth*. (American Police Beat, 2004). In this article Ross explains that in the summer of 2003 officers from the Glendale Police Department responded to a call from a 15-year old male who was out-of-control and threatening his family with a knife. The 15-year old male would not comply with the officer's command and ended up being shot and killed. The ACLU was outraged that a TASER was not used to subdue the 15-year old male.

In the fall of the same year the Glendale Police Department responded to a call summoning assistance from paramedics regarding an out-of-control subject who was experiencing an overdose. The officer on scene utilized a TASER to gain control of the thrashing male so that medical personnel could treat him. The subject later died of an overdose. The ACLU then chastised the officer for using the TASER in this situation and has filed a lawsuit.

The ACLU would prefer that TASERS be moved up within the use of force continuum to a level equal to deadly force. If agencies accept the ACLU's

recommendations, TASERS would be rendered useless in law enforcement. No officer is going to choose a TASER over a lethal weapon when confronted with deadly force.

The reality is, that the ACLU only wants officers to use TASERS in lieu of deadly force weapons. For example, if a suspect with a firearm confronted an officer, the ACLU would consider this the only time that an officer could justifiably use a TASER. TASERS frighten an organization that survives by collecting money from law enforcement agencies throughout the country via lawsuits. If officers stop physically fighting with suspects, reduce the number of fatal shootings by 75%, no longer get videotaped using nightsticks and batons on subjects; the ACLU will have trouble keeping funds coming in.

The similarities among law enforcement agencies and the information provided by TASER International are evident. TASERS save lives, reduce officer/suspect injury, and reduce department and officer liability. The current trend in progressive law enforcement agencies is to issue TASERS to their field personnel. Civil liberty groups also agree that more non-lethal or less lethal weapons must be utilized. However, these groups also believe the possibility for the misuse of the TASER exists.

METHODOLOGY

Should law enforcement agencies allow or even require field level personnel to carry TASERS? Where should the TASER be placed in the use of force continuum? Is another level of force or piece of equipment even needed? Should the TASER replace the handgun?

The researcher proposes that law enforcement agencies should be allowed the use of the TASER and that all field personnel should be issued or allowed to purchase their own TASERS. The TASER should be placed at the same level as empty hand control tactics.

This level of force should be added to the use of force continuum. No, the TASER should not replace the handgun or any other type of firearm.

The method of inquiry includes: numerous newspaper articles, both for and against the use of TASERS, published books on police use of force, Harris County Sheriff's Office policies on use of force, data provided by the Harris County Sheriff's Office TASER usage group, technical and training data provided by TASER, personal experience as a TASER instructor and operator, including two voluntary exposures to the TASER, one in the drive-stun mode and another in the full-deployment mode.

The survey measurement instrument used was a questionnaire of licensed peace officers of the State of Texas. The survey was submitted to forty law enforcement officers from forty (40) different Texas law enforcement agencies. The law enforcement agencies ranged from small rural agencies with less than 10 officers to very large urban agencies. The response rate was 100 %. The information obtained was analyzed by: determining how many of the agencies allowed the use of the TASER, how long the TASER has been in use in the agencies that allow its use, whether or not the TASER has been fully or partially deployed to field personnel, considering whether or not the personnel trained in the use of the TASER are required to submit to a voluntary exposure of the TASER and if they thought it was beneficial, determining what other types of less-lethal force options are available as use of force options, finding out if those surveyed were personally aware if the use of a TASER at their agency prevented an incident from evolving into the use of lethal force, and asking if their agency was not using TASERS, are they considering implementing the their use.

FINDINGS

The first two generations of the TASER appear not to have been very beneficial to the law enforcement field. The first two generations of the TASER had the ability to work as a pain compliance weapon on persons who were not highly motivated or using some type of alcohol or drug. However, they were not very effective on persons who were highly motivated or using some type of alcohol or drug. These earlier models only delivered 7 watts and twenty muscular disruption units, which only stunned the target.

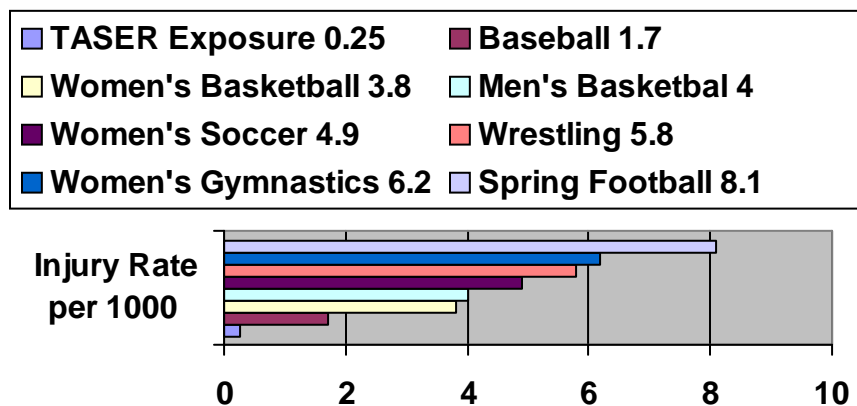
The third and fourth generation TASERS on the other hand are very effective according to TASER International, many law enforcement agencies and this author. The M26 and X26 TASERS both deliver twenty-six watts and 50,000 volts. The M26 delivers 100 muscular disruption units while the X26 delivers 105 muscular disruption units. Muscular disruption units are used to quantify the amount of incapacitation caused by a pulsed energy weapon. Both of these conducted energy weapons stun and override the central nervous system causing uncontrollable contractions of the muscle tissue, which affects the sensory and nervous systems causing incapacitation.

Concerns about the amount of electricity expended by both the M26 and X26 seem to be of concern for individuals and groups who oppose the use of TASERS. This should not be an area of concern. High voltage plus low amperage equals a safe and effective weapon. It is not the volts that are dangerous it is the amperage. The M26 and X26 use 50,000 volts and only 0.004 amps. Modern pacemakers withstand electrical defibrillators several hundred times stronger than the TASER conducted energy weapons.

TASER International has conducted extensive animal testing that has shown no effect on heart rhythms or blood pressure. There have been 50,000 plus human volunteers since January of 2004. None of these volunteers suffered any type of serious injury. Some

did experience minor skin irritation, temporary blisters and redness or minor bleeding if probes puncture the skin. Of these voluntary exposures there was a 99% instant incapacitation in less than a second. The author was one of these volunteers and was immediately incapacitated. It was the most debilitating less-lethal weapon I have been exposed to. This author also witnessed a volunteer who had had a recent heart attack and had a stint in place receive a voluntary exposure. He was immediately incapacitated and recovered with no side affects as soon as the TASER was turned off.

Volunteer Exposure Comparison of Injury Rates



* Source: NCAA Injury Surveillance Systems Summary

TASER weapons might cause slight signature marks that resemble surface burns that may blister or appear red, eye injury if shot too high, strong muscle contractions or secondary injuries if the target falls. TASER weapons do not damage nervous tissue, cause serious burns, cause electrocution in wet environments or harm fetuses and generally does not cause urination or defecation.

TASER International provides the following statistics after implementing the use of TASERS at the noted law enforcement agencies: Officer injuries down 80% at the Orange County, FL, Sheriff's Office; use of lethal force down 78% at the Orange County, FL,

Sheriff's Office; baton strikes down 56% at the Orange County, FL, Sheriff's Office, suspect injuries down 67% at the Phoenix, AZ, Police Department; liability savings of 2.5 million dollars at the Los Angeles, CA, Sheriff's Office.

Several human rights groups are concerned about the possibility of using TASERS as a method of torture because they have the ability to inflict severe pain without leaving any type of substantial evidence that the TASER has been used. This concern is not valid in this authors few due to the serial data port which is an integral part of the TASER M26 and X26. The M26 is capable of storing the time, date and duration of each trigger cycling. Thus making it highly unlikely any officer would use the TASER unjustly or without cause. This author is personally aware of an incident where a law enforcement officer failed to document the use a TASER. After a complaint was filed, the officer in question admitted to using the TASER. However, he failed to disclose the correct number of times he cycled the trigger. This information was easily obtained from the data port and the officer was disciplined for failing to properly document the TASER usage and for not being truthful in an investigation. This is evidence that the data port was used properly.

What can go wrong when using the TASER? It could ignite gas fumes in methamphetamines laboratories, or when used around aerosol chemical agents or other flammable or combustible environments. More examples of what might cause TASER failure include: administering a hit over clothing more than 2 inches thick, single dart hits, low batteries, operator error, low nerve/muscle mass, cartridge failure, and wire breaks.

Another problem that has been encountered after deployment of TASERS is officers accidentally drawing their handgun and discharging them instead of the TASER. At least two of these incidents have been documented. In Rochester, MN, an officer arrived on a scene to find a fellow officer engaged in a fight with a suspect. This officer placed his black M26 TASER in his pants pocket on the same side as his primary weapon. When the officer

became involved in the struggle himself, he decided to use the TASER and accidentally drew his primary weapon and fired one round, striking the suspect near his kidney. The suspect survived. Since this incident the Rochester Police Department has changed the color of their TASERS to yellow. In Madera, CA a female officer mistook her handgun for a TASER and fired one round into the chest of a suspect and killed the suspect. The officer was carrying the TASER on her thigh slightly below her handgun. TASER less-lethal weapons are legal for citizen self-defense in forty-three states. If they are available to the general public, they should be available for use in all law enforcement agencies.

The survey revealed that 40% of the agencies include TASERS as a use of force option. TASERS in these agencies have been in use on average for 1.5 years. Eighty-two percent of the agencies place the TASER at or before pepper spray and the other 12% place it above pepper spray and 6% did not know where it was placed on their use of force continuum. Forty-five percent of agencies fully deploy the TASER and the other 55% partially deploy it. Eighty-two percent of the officers certified to carry the TASER received a voluntary exposure, whereas 18% did not. Of those officers who received the voluntary exposure, 100% thought the exposure was beneficial. Fifty percent of the officers surveyed were personally aware of an instance when the use of a TASER prevented an incident from evolving into a lethal force incident. Of those agencies that do not include TASERS as a use of force option, 37% are considering including them as a use of force option.

A review of TASER usage at the Harris County Sheriff's Office between September 2004 and July 2005, revealed that 93% of the time that a TASER was used, it was effective. There were no serious injuries or deaths reported at the Harris County Sheriff's Office as a result of using a TASER. This reveals that TASER usage at the Harris County Sheriff's Office has been effective.

CONCLUSIONS

Should law enforcement add another level of force or tool (TASERS) to the use of force continuum? The author hypothesized that the research would indicate that yes, law enforcement agencies should allow their field officers to carry TASERS. This author concludes that TASERS will continue to be used by law enforcement agencies, and that more law enforcement agencies will implement the use of TASERS and eventually, civilians will also purchase and use TASERS. The author also discovered that because of the increased use of TASERS, the use of lethal force by law enforcement should decrease, officer suspect injury rates should decrease, worker compensation claims should decrease and lives will be saved. Citizens who fear becoming the victim of crime will have their fears reduced. This author also concludes that civil rights groups such as the American Civil Liberties Union, Amnesty International and other special interest groups will continue to denounce the use of TASERS even though they save lives.

The findings of the research and the subsequent conclusions did support the hypothesis. TASERS save lives and they should be deployed to all field personnel and placed at or before the same level as pepper spray on the use of force continuum. The only limitations that hindered this study were the various incidences of death that Amnesty International attributed to the use of a TASER.

This study is relevant to law enforcement because it is the best tool made available to immediately incapacitate a subject without causing any serious or prolonged injury. Law enforcement agencies, their parent governmental entity and the community that these agencies serve will all benefit and be affected from the findings of this research.

REFERENCES

Olsen, L. (2004, July). Police shootings can be reduced. *The Houston Chronicle*, pp. A, 1,

A17.

Ross, V. (2004, September). American Police Beat.

TASER International Training Video & Information Disk Version 11 (2004).

Weiss, J. (2003, Fall). Tactical Response.

United states of america excessive and lethal force? Amnesty international's concerns about deaths and ill-treatment involving police use of tasers. Retrieved December 1, 2004, from [http://www.webamnesty .org/lirary/print/ENGAMR511392004](http://www.webamnesty.org/lirary/print/ENGAMR511392004) UNITED

Law Enforcement Agency TASER Usage Survey

Name of agency:	Number of sworn personnel:
-----------------	----------------------------

1. Does your agency currently utilize the TASER as a use of force option? Y/N
2. How long has the TASER been in use in your agency? _____
3. Where is the TASER placed on your use of force continuum? _____
4. Is the TASER fully deployed to all field personnel or is it a partial deployment?
5. Is it mandatory for the personnel trained in the use of the TASER to carry it on their person? Y/N
6. If you are trained in the use of the TASER, did you receive the voluntary exposure to the TASER? Y/N
7. If yes, did you think it was beneficial? Y/N
8. What other types of intermediate use of force options are available to law enforcement personnel in your agency? Circle all that apply.
 - ◆ Pepper spray
 - ◆ Pepperball
 - ◆ ASP baton
 - ◆ Straight stick baton
 - ◆ Handler 12
 - ◆ Beanbag round, 12 gauge or 37/38 mm
 - ◆ Other _____
9. Are you personally aware of any incidents in your agency where use of the TASER prevented the incident from evolving into the use of deadly force? Y/N
10. If yes, how many? _____
11. If your agency is not currently utilizing the TASER as a use of force option, is it being considered? Y/N
12. If your agency has ruled out the use of the TASER as a use of force option, do you know why? Please explain _____

Person conducting survey: John L. Morrison