

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

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The Taser as the Best Less-Lethal Option Available Today

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ABSTRACT

With the ever changing environment in law enforcement, agencies all over the country are looking at ways to improve officers' capabilities to use less-than-lethal force. The objective of this research is to determine whether or not the taser is currently the best less-than-lethal option available today. The methods of inquiry in this research are to conduct a survey with supervisors who work in law enforcement agencies within the state of Texas, review journals and articles already published concerning less-than-lethal weapons, and to review less-lethal manufacturers materials on their weapons. Some findings discovered during this research were that 100% of the supervisors who responded to the questionnaire stated their department currently uses at least one of the weapons discussed during this research and all the less lethal weapons were perceived to be effective. Another interesting finding was that the two less lethal weapons perceived to be the most effective, the taser and pepperball, were the two weapons issued the least. In conclusion, the research was not able to determine that the taser is the best less-lethal option available today, instead it determined that both the taser and pepperball are perceived to be the best less lethal options available. This research should benefit agencies that do not have the budget to test and research all of the available less-lethal options.

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INTRODUCTION

With the ever changing environment in law enforcement, agencies all over the country are looking at ways to improve officers' capabilities to use less-than-lethal force. In light of the constant scrutiny of the public on how law enforcement handles use-of-force situations it is imperative that agencies use the best less-lethal options available. Due to the tighter budgets of most agencies, it is necessary for many agencies to find the most reliable, affordable, and effective less-lethal option available.

The question to be answered in this research is whether or not the taser is currently the best available less-lethal option available today. There are several different types of less-lethal options available to law enforcement today. Each has its advantages and its problems. Due to the tighter budgets of many law enforcement agencies many are required to make an educated decision on which less-lethal weapon or weapons will be the best for their agency without exhausting their budget to test and purchase these items.

There will be several different methods of inquiry in this research project. A survey will be conducted with law enforcement agencies across Texas. The survey will attempt to determine which agencies use less-lethal weapons in their arsenal and the types of less-lethal weapons used. The survey will also try to determine if the responding agencies consider their less-lethal options as being successful. Also, an inquiry into this subject will be made by reviewing articles, and journals already published on the topic of less-lethal weapons. The reviewed journals and articles should have answers to how well these less-lethal weapons are performing in the field. The final form of inquiry into this matter will be to

contact the different less-lethal manufacturers and review the published material on their weapons. These reviews should contain valuable data that the manufacturers have already collected from field use. The intended outcome of this research paper is to show that the taser is currently the best viable less-lethal weapon available today. The outcome will be determined from all the resources reviewed and the survey responses.

The implications of this research will be that the taser is a less-lethal option, possibly the best less-lethal option available today. There are several different areas in law enforcement that should benefit from this research. One area of law enforcement that could benefit from this research is the agencies that do not have less lethal as an option in their use of force. Hopefully, these agencies are currently looking into the different types of less-lethal weapons. These agencies should benefit from this study because they probably have a very limited budget and must decide on just one of the many less-lethal options available to law enforcement in this day and age. Other aspects of law enforcement should benefit from this study as well, such as an agency that has less-lethal options but does not like the outcomes the weapons have produced when using the less-lethal weapons in the field.

REVIEW OF LITERATURE

In reviewing the literature available today it is apparent that there are several different types of effective less than lethal weapons available today. It is also apparent that each less than lethal weapon has their place in police department arsenals. The problem is that each less than lethal weapon also has

its problems and most current police departments can not afford to implement all less than lethal options available today.

In order to attempt to justify which less lethal option is currently the best option available. We must first look at several different less lethal options. The less lethal options that will be reviewed and discussed in this paper are the Taser, Pepperball, Impact projectiles (bean bag), pepper spray and the baton.

The first less lethal option to be reviewed is the pepper spray or oleoresin capsicum (OC) sprays. Faulkner and Danaher (1997) advised Pepper spray (OC) is organically based product derived from the cayenne pepper plant. Pepper spray is currently one of the most widely used less-than-lethal weapons today. According to Wexler (1999), Pepper spray works by causing “the mucous membranes of the eyes, nose and throat to become inflamed and swollen. The systematic swelling produces involuntary eye closure due to dilating capillaries; nasal and sinus drainage; and temporary paralysis of the larynx, causing gagging, coughing, and shortness of breath” (p. 38).

There are several reasons for the popularity in the use of pepper spray. The first is pepper spray is very cost conservative, with the average can of pepper spray costing less than ten dollars. The second reason pepper spray is popular is due to the way it’s carried, usually on a patrol officer’s duty belt, making it readily available when deemed necessary for use by the officer. The third and final reason pepper spray is popular is it is considered very low on most police agencies use of force continuum, usually right after verbal commands. This means it falls well below the use of deadly force.

Pepper spray is a good less lethal option in the fact it usually does not leave a lasting injury to the suspect or the officers. Usually soap and water will remove pepper spray from all parties involved in due time. Officers are usually not afraid to use pepper spray due to the feeling that there will be no lasting effect on the suspect. However, there are problems with pepper spray.

The most common problem with pepper spray is that it is an aerosol agent. The problem with this is an officer can not control where all of the pepper spray will impact. In most cases all persons in the immediate vicinity when pepper spray is used will feel at least some of the effects of the pepper spray, cross contamination should be a concern when pepper spray is deployed. This can cause obvious problems for officers if they are the ones affected. Another major problem with pepper spray is that for it to be deployed effectively on a person the officer must be extremely close, within arms reach, to the intended target.

The next less lethal option to be reviewed is the pepperball system. The pepperball is a paintball type ball filled with OC dust. The pepperball system is used by firing the paintball, from a paintball type of weapon, at an intended target. The pepperball breaks open upon impact and leaves the (OC) dust airborne near the intended target.

The pepperball has many of the same benefits as pepper spray in that it is low on the use of force continuum and there should be very little injury to the intended target. Oldham (2001) noted that the suspect would have bruising from where the paintballs impact the suspect's person. The person should also have a quick recovery time due to the fact that the contaminant can be removed from the person by soap and water.

One major benefit the pepperball has over traditional pepper spray is the distance from which it can be used. As mentioned earlier pepper spray has to be used from a very close range usually less than 5 feet, but according to Oldham (2001) pepperball can be used effectively from point blank out to ten yards away (p. 95). This is due to the fact the pepperball does not break open until it strikes a hard target. Another advantage Oldham (2001) reported is most pepperball systems hold over 180 rounds, so several rounds can be used to displace large crowds.

There are some problems with the pepperball system. The first, as pepper spray, is that its effectiveness is based mostly on pain compliance. If a person is intoxicated on certain drugs or emotionally disturbed this system may not work against that person. A second problem with pepperball, just like pepper spray, is that of cross contamination, if the suspect is close to the officer at the time of impact. The final and probably biggest problem with pepperball is the immediate availability of the weapon itself. Due to the fact that it's delivery system is a form of a paintball gun it's very unlikely an officer will be walking around with a paintball gun on their duty belt.

The next less lethal option to be discussed is the baton. The baton is the oldest of all less lethal weapons. The benefit of the baton is that it is readily available to most officers, it is also usually carried on a patrol officer's duty belt. A second benefit of the baton is its site specific and there should not be any other persons affected than the intended target, no cross contamination.

There are also problems with the baton. The biggest is that it's considered high on most departments' use of force continuum, usually just under deadly

force. A second problem with the baton is it can easily become deadly force if an officer misplaces a strike and hits the suspect in a vital area, i.e. the head.

Another problem with the baton is that it's a pain compliance tool and just like the previous weapons if a person is on drugs or emotionally disturbed this weapon may not be useful. The final problem with the baton is the close proximity the officer has to be to the person they are striking, within arms reach, for the weapon to be effective.

The next less lethal option reviewed is impact projectiles, which are more commonly known as "bean bags" or "rubber bullets". The benefits of impact projectiles are that they can be used at considerable distances from the intended target, according to Rosenbarger (2001) some manufacturer's claim their projectiles are effective out to 135 feet. Another benefit is these weapons are sight specific like a baton and there should be no cross contamination.

There are also several problems with this less lethal weapon. The biggest problem is that it is high on the use of force continuum, usually just below deadly force. A second problem is there can be considerable injury to the party struck by this weapon including some cases where the struck party has died. Another problem with this weapon is its availability. Most impact projectiles are fired from a shotgun and most officers shotguns are carried in their cars, usually in the trunk or a secured shotgun rack, and not on their duty belts.

The final less lethal option to be reviewed is the taser. Williams and Simon (2001) noted that the tasers used today fire two barbed darts, each trailing a fine insulated wire connected to a taser launcher (p. 82). Taser international

advised that when the probes strike an intended they emit an electrical charge of 50,000 volts. Griffith (2002) pointed out that the benefits of the taser are that it can be used effectively to a range of 21 feet away. Another benefit to this weapon is it's readily available. James (2001) noted the taser is customarily carried on the officer's duty belt on the officers weak hand side, which is the side opposite from the officers duty weapon.

Additional benefit of the taser is it is a site-specific weapon and there should not be cross contamination. The next benefit of the taser is it's usually considered very low on the use of force continuum, usually the same use of force as pepper spray. Another positive is the taser should only leave a non-traumatic injury to the person "tased," possibly a small burn where the probe contacted the skin and any injury the person sustains if they fall. The person struck with the taser should be completely recovered from the taser in less than five minutes with no lasting injuries.

The final and probably the biggest advantage of the taser over the other less lethal weapon options mentioned in this article is that it's not based on pain compliance, but according to Vogel (1998) it produces disorientation, loss of motor control and uncontrollable nerve spasms. The weapon should work on persons intoxicated on drugs or emotionally disturbed.

As with all the less lethal weapons discussed in this research, there are problems with the taser as well. One is you have to be in close proximity of the suspect, according to Taser International you have to be within 21 feet or less. Another problem with the taser is not the injury from being shot with the taser but

the possibility of injury when the suspect falls. The biggest problem with the taser is you have to strike the intended target with both probes for the weapon to work.

METHODOLOGY

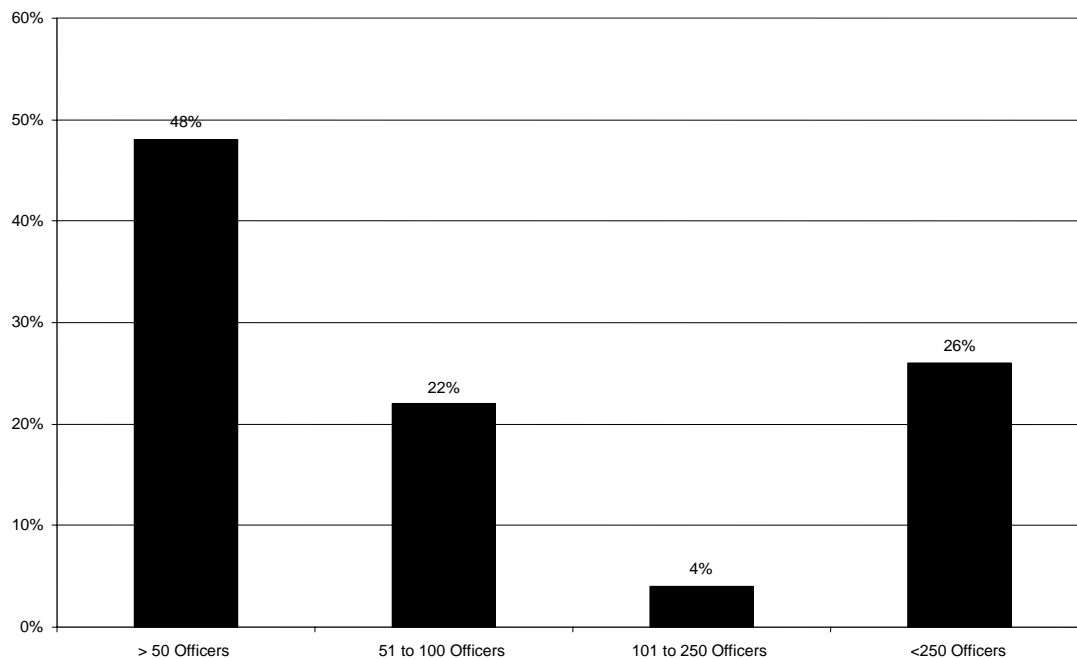
Is the taser the best less lethal option currently available on today's market for law enforcement? Are one of the other less lethal options mentioned earlier in the study the best available? Will there ever come a time when there will be one perfect less lethal option available to law enforcement?

The taser is currently the best less lethal option available to law enforcement officers today. This will be demonstrated through the review of the current literature on less lethal weapons. This will also be demonstrated by asking supervisors from across the State of Texas as to their perception of whether or not less lethal weapons work and which less lethal weapons they feel work the best.

A questionnaire was distributed to all the supervisors currently attending module I of the Law Enforcement Management Institute of Texas (LEMIT, hereafter) at Texas A & M University. There were a couple of reasons supervisors were chosen as the respondents to the questionnaire. The first reason is the use of less lethal weapons can affect supervisor's job more adversely than a patrolman's. A second reason supervisors were used in the survey is many times, supervisors are the ones who have to authorize the use of less lethal weapons. If there is an inappropriate use of a less lethal weapon, supervisors, especially field supervisors, will be the ones answering to both the upper chain of command and possibly the media.

There was an 85% response rate to the questionnaire. The departments varied in size from two sworn officers, Alice ISD, to a department that has over 2500 sworn officers, The Dallas Police department. Below is graph breaking down the size of the departments that responded to the questionnaire that was distributed in this class (See Figure I)

FIGURE I RESPONDENTS DEPARTMENTAL SIZE



The information obtained will first be analyzed to see the percentage of police departments represented in this current class, actually use some sort of less lethal weapon. The information will also be analyzed to see which weapons are distributed most frequently by police agencies in the State of Texas. The final way this information will be analyzed will be to see what the supervisors

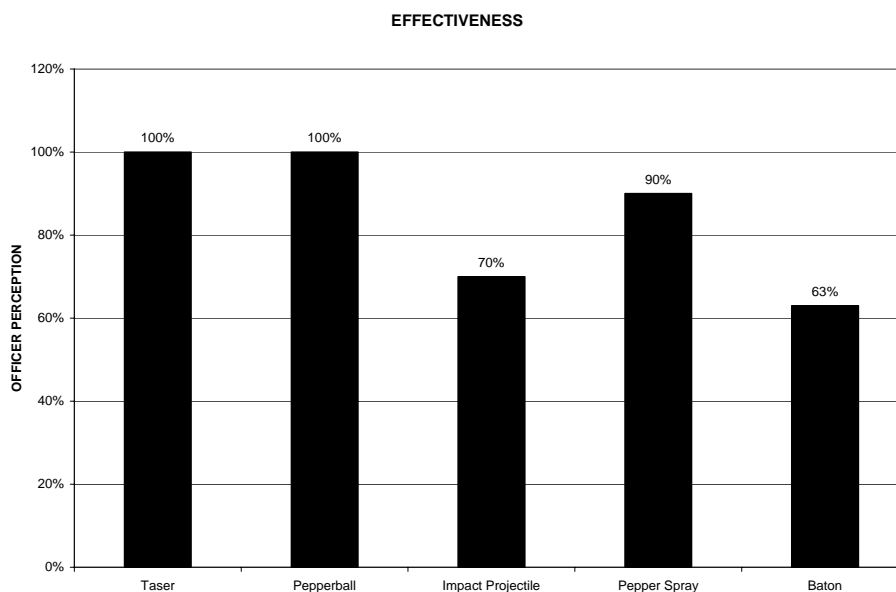
themselves perceive to be good less lethal weapons and to see which weapons they feel do not work.

FINDINGS

The first finding that proved interesting was that 100% of the supervisors responding to the questionnaire stated their current police department uses at least one of the less lethal weapons discussed in this research? This fact alone represents the importance of less lethal weapons in police work today and it shows that police departments recognize the importance of these weapons. The reason this is important is these less lethal weapons give officers alternative choices before they have to use deadly force.

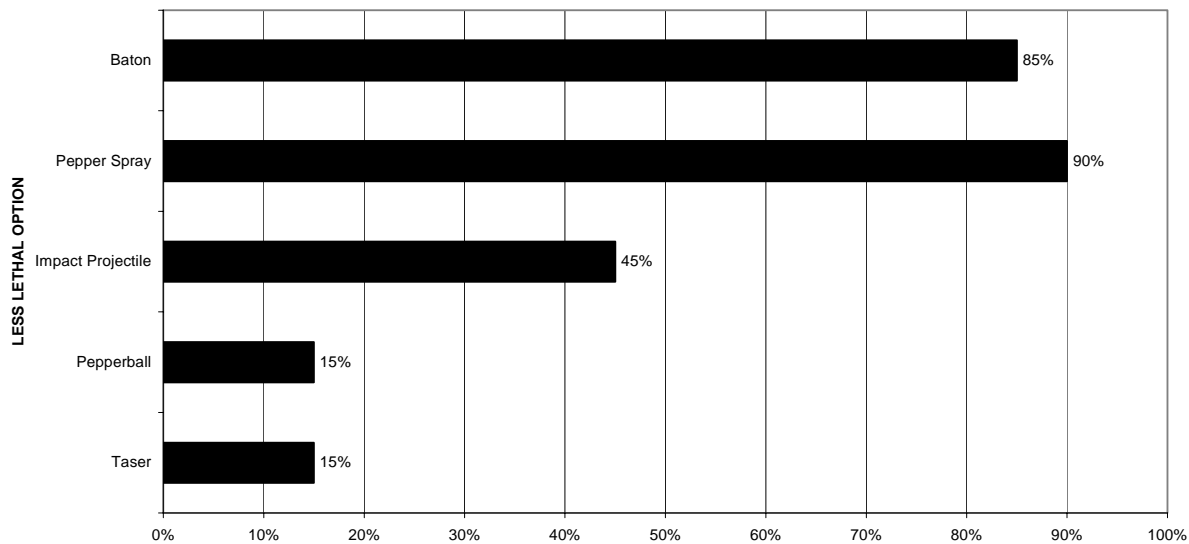
The second interesting fact discovered from the survey was that all the less lethal weapons discussed during this paper were perceived to be effective by supervisors who responded to the survey. The less lethal option that was considered to be the least effective by the supervisors was the baton and this weapon was still considered to be effective by 63% of the supervisors questioned. Below is a graph representing the perceived effectiveness of the less lethal weapons by the respondents to the questionnaire (See Figure II)?

FIGURE II PERCEIVED EFFECTIVENESS



The final and probably the most interesting findings is the fact that the two less lethal weapons, taser and pepperball, that were perceived to be the most effective by the supervisors were the two weapons issued out the least by the respective police agencies. The less lethal weapon that was perceived to be the least effective, the baton, was the weapon that was issued the second most frequent by the police agencies involved in this survey. The following graph depicts which, type of less lethal weapons, are distributed by the agencies involved in this survey (See Figure III).

FIGURE III DEPARTMENTAL ISSUANCE



CONCLUSION

In conclusion, a current problem in law enforcement is there are so many different types of less than lethal weapons available today. This causes a problem because with the restrictive budgets many police agencies are forced to work under it's important for a police agency to find a reliable, affordable, and effective less-lethal option. The purpose of this research was demonstrate that the taser is the safest, cost effective and most reliable form of less than lethal weapon available at this date and time. The question this research attempted to answer was if the taser is the best choice in less than lethal weapons currently available today.

The findings of the research supported the taser is perceived to be an excellent less than lethal option, but the survey also revealed that the pepperball was perceived to be an excellent less than lethal option as well. There was not

enough evidence to show that the taser is the best less than lethal option. It would take a much larger research field, more agencies surveyed, to support the fact that taser is the best less lethal option.

The taser was perceived to be 100% effective by the departments that were surveyed that currently carry the taser. The only problem with this result is that only 15% of the departments surveyed even carried the taser as a less than lethal option. Another problem with the survey was that the pepperball was also considered to be 100% effective but it too was only carried by 15% of the agencies surveyed.

There were several limitations that hindered this study. The most obvious limitation was the fact there were so few police agencies in this survey using the taser as a less lethal weapon. This limitation was important in the fact that even though the taser was perceived to be 100% effective it was only used by 15% of the departments in the survey. There needed to be more agencies involved in the survey currently using the taser to justify the 100% effectiveness. This same limitation caused problems when the pepperball was also perceived to be 100% effective, but it was only used by 15% of the surveyed agencies.

The next major limitation to this study was the fact that the newer versions of the taser haven't been seen or demonstrated to several of the persons that participated in the survey. Several of the supervisors made comments referring to the Rodney King incident thinking this was the same type of taser, which is not true. The taser used in the Rodney King incident was only a 7-watt taser and the current tasers are at least an 18-watt taser. Also, the taser in the Rodney King incident was based on pain compliance. Nielsen (2001) noted the newer tasers

transmit short duration, high energy, and electrical pulses, overwhelming the sensory nervous system, stunning the target.

This study is relevant to law enforcement in many ways. The first way it is relevant is that it shows that less than lethal is considered a very important part of a police agency arsenal. This was demonstrated by the fact that 100% of the departments involved in this survey currently use at least one of the less lethal options mentioned in this research. This is also relevant because it shows that less than lethal weapons are perceived to be effective, with the lowest rated less lethal option still considered to be effective by more than 60% of the supervisors surveyed. The final way this research is relevant to law enforcement is it gives departments without less than lethal options a chance to review the findings to determine which option they would like to use. This research was beneficial because it shows that two of the less lethal options were considered to be 100% effective by the agencies that use either pepperball or taser.

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