

HOW WILL THE USE OF FORCE IN A MEDIUM SIZED URBAN AGENCY BE
AFFECTED BY ADVANCEMENTS IN LESS LETHAL TEHCNOLOGY BY 2008?

A project presented to
California Commission on
Peace Officer Standards and Training

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This Command College project is a FUTURES study of a particular emerging issue in law enforcement. Its purpose is NOT to predict the future, but rather to project a number of possible scenarios for strategic planning consideration.

Defining the future differs from analyzing the past because the future has not yet happened. In this project, useful alternatives have been formulated systematically so that the planner can respond to a range of possible future environments.

Managing the future means influencing the future; creating it, constraining it, adapting to it. A futures study points the way.

The view and conclusions expressed in the Command College Project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training (POST).

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CHAPTER ONE

DEVELOPMENT OF THE ISSUE

Introduction

How will the use of force in a medium sized urban agency be affected by advancements in less lethal technology by 2008?

In the last thirty years, in almost every aspect of law enforcement, there have been tremendous advancements in technology. These advancements are very prevalent in the area of less lethal weapons. Back in the 1960s, there were very few options for law enforcement beyond lethal force. The purpose of this project is to examine the past and present in the area of less lethal weapons and then project potentials for future developments. By doing so, agencies can prepare for future developments in less lethal technology. By planning for these advancements, law enforcement agencies can be better prepared when using force on uncooperative or violent individuals. This project will examine the effect of advancements in less lethal technology on medium sized urban agencies by the year 2008. Law enforcement executives have strived to maintain pace with the latest and newest developments in the equipment they purchase and provide to the peace officers working in their respective cities. This race to maintain pace with these advancements is sometimes costly and unsuccessful. While most applications of force by a peace officer result in a successful conclusion to an issue, each has the potential for disastrous results affecting the career of the

peace officer and the reputation and financial stability of the city and law enforcement agency. How peace officers administer that force, and by what means, is critical to the mission of that organization.

Less Lethal versus Less Than Lethal

Less lethal weapons were originally developed to provide law enforcement, corrections, and military personnel with an alternative to lethal force. The intent of a less lethal weapon is intended to incapacitate, confuse, delay, or restrain an adversary in a variety of situations. They have primarily been used during on-the-street confrontations and suicide interventions, but they have also been applied in riots, prison disturbances, and hostage rescues. Less lethal weapons are most often used when: (1) lethal force is not appropriate, (2) lethal force is justified but lesser force may subdue the aggressor, and (3) lethal force is justified but its use could cause collateral effects, such as injury to bystanders or unacceptable damage to property and environment.¹

For the purpose of this project, the terms “non lethal” and “less than lethal” shall be synonymous with “less lethal.” The first and original term used for these weapons was “non lethal.” The term “less than lethal” was also used by manufacturers and law enforcement agencies to describe weapons which, if used appropriately, would most likely not cause death. Each of these terms were found to be inappropriate since some of these weapons did, in fact, cause death on some rare occasions. For example: a police baton and beanbag fired from a

¹ Honorable Sarah V. Hart, Less than Lethal Weapons, Report to National Institute of Justice Office of Justice Programs, 2 May 2002, 2.

shotgun were considered less than lethal weapons, yet the use of each of these weapons has resulted in the death of individuals. As a result, the terms non lethal and less than lethal were not accurate descriptions of these weapons. For training and liability reasons, it is important that the term to describe a weapon clearly defines the potential of the device. Therefore, this project will refer to such devices as less lethal.

History

The history of some less lethal weapons goes back as far as 2500 years, and yet others have only been available to law enforcement for a few decades. The Japanese samurai warriors carried finely ground pepper placed in a thin rice bag. These bags were thrown into the eyes of their enemies causing temporary blindness. The Chinese used what were called “stink pots.” They consisted of pepper burned in oil causing irritating and suffocating smoke. Current day law enforcement uses oleoresin capsicum, also known as pepper spray, for the same effects.

During the Viet Nam war and the turbulent 60’s and 70’s there was significant civil unrest in large metropolitan cities and on University Campus grounds in opposition to the war and for minority rights. This led to violent disturbances as the Watt’s Riots, Detroit Riots, Chicago 1968 and the incident at Kent State where National Guardsman shot and killed several students. These incidents and particularly Kent State drove a call for the development of less

lethal means to deal with unruly crowds and this challenge materialized in San Ramon, CA. at MB Associates in the form of a 'beanbag' projectile.²

A continued push for development in the less lethal arena produced the original beanbag round. A University of California at Berkley student, Bob Mawinney, developed this weapon while working for MB Associates in the early 1970s. Their beanbag projectile was made of a fabric containing metal pellets similar to small ball bearings. The projectile was fired from a 37mm gun.

As with many of these types of weapons, the funding for the research and design came from the United States Army. In 1971, after many tests on animals, human cadavers and instrumented dummies, and at a cost of \$500,000, the "Beanbag" projectile was created.³ At that time, due to military influence, all beanbag projectiles were fired from either 37mm or 40mm caliber firearm. It was not until 1990 that the first 12-gauge beanbag round was designed by MK Ballistic Systems and first used in the riots resulting from the Rodney King trial verdict. The beanbags were first used in the cities of San Diego and Las Vegas. The successful use of these less lethal devices has opened the door, and now almost every law enforcement agency uses some form of this weapon.

² Unknown Author (MK Ballistic), History and Origin of Bean Bag Type Ammunition, Training Literature provided by Lieutenant R.K. Miller (Huntington Beach Police Department).

³ Unknown Author (MK Ballistic), History and Origin of Bean Bag Type Ammunition, Training Literature provided by Lieutenant R.K. Miller (Huntington Beach Police Department).

Categories of Less Lethal Weapons

At the present time, there are six categories of less lethal weapons. Those categories are: electrical shock, chemical, impact projectile, physical restraint, light and acoustic.

Electrical Shock: There are two types of electronic weapons currently being used by law enforcement officers. The first are hand held devices with two probes that are pressed against the suspect. An electrical shock is administered when the officer pulls a trigger that activates this device. To use this device, the officer must get close enough to touch the suspect with the device. The second electronic weapon fires projectiles into the suspect at a distance up to 15 feet or greater. The barbed projectiles are fired from the weapons and penetrate into the body of the suspect. A thin wire leads from the projectiles back to the weapon. It is through these wires that the electrical shock is delivered to the barbed projectiles and ultimately into the body of the suspect. The device is activated like a firearm when the trigger is pulled. An officer can administer additional charges by again pulling the trigger. This device can be used at distances of 15 feet and more. Advancements over the years have increased the intensity in these devices, making them very effective.

Chemical: This is probably the most common and widely known by the public. Chemical weapons can be carried on the body, thrown, or fired from a gun in pellet form. Aerosol chemical weapons, like oleoresin capsicum or pepper spray are typically carried on the officer's gun belt. A drawback to chemical agents is that individuals, in some cases, are able to continue to resist and fight,

ignoring the effects of the agent. Another drawback is that the chemical agent may affect officers involved in the incidents.

Impact Projectiles: There are many types and variations of impact projectiles. These range from stingball grenades to rubber bullet guns and beanbag guns. There are safety concerns with these weapons and the deploying officer has to be aware of distances and the area of impact on the suspect's body. The degree of incapacitation varies greatly and can wear off quickly.

Physical Restraints: There are a variety of products available to law enforcement to physically restrain or impede the movement of aggressive suspects. A safety concern with all of these weapons is that the officer must come in contact with the suspect while they are still acting in a violent manner. Examples of restraint devices are control holds, handcuffs and hobbles. Two other types of restraint devices are net guns and sticky foam. Both of these devices provide the officer a greater level of safety since they can be deployed at a distance. The net gun fires a large net with weights attached and ideally will wrap around the violent individual preventing them from continuing their fight. The sticky foam is a substance fired from an aerosol container and works like a glue. The arms and legs of the suspect are immobilized as the foam or glue quickly hardens preventing movement.

Light and Acoustics: Currently, law enforcement uses light sound diversionary devices (LSDD). These are more commonly known as flash bangs and are typically used by police department tactical units. These devices use a

bright flash of light and loud sound to temporarily confuse and disorient a suspect long enough for the tactical unit to gain the advantage.

Maintaining Pace/Budgetary Constraints

For some small and medium size agencies, it may be difficult to maintain pace with continued improvements in technology. Every city is beginning to feel the strain of budget cuts and dwindling grant funds. Typically, with many agencies, these grant funds are essential to purchase new weapons technology. Areas that need to be considered for the future are numerous. Is the agency buying tools that have been proven to be effective and field-tested? Is this weapon in the development stages and will there be a better item developed in the near future? What is the learning curve? What are the costs to purchase and maintain these weapons? What is the communities' expectation for their law enforcement agency to purchase and use these types of tools? What impact will the media have on the use of less lethal weapons?

Future Technology

Unfortunately, at this time, a completely effective less lethal weapon does not exist. While there are other weapons being developed that will use light and sound to completely disable an individual, these regrettably are not currently available to law enforcement. There are some individuals who believe that the perfect device or technology will never be developed.⁴ Military leaders and law

⁴ Peter D. Button, Staff Sergeant, Less-Lethal Force Technology, Tactical Training Section, Internet Article, 4.

enforcement executives think of the benefit of bloodless battles. But the search for new weapons, cloaked in secrecy, faces many hurdles. The development of this perfect weapon faces acute skepticism by many weapons experts. No matter what weapon you choose, it is not 100% effective on 100% of the people. Whether it's the pain from a chemical spray, the impact of a kinetic round, or the stun effect from a TASER, none of the current technology actually debilitates a subject 100% of the time. If there were such a weapon, it would drastically reduce the amount of deadly force encounters.⁵ Peace officers would be able to stand at a distance and deploy these weapons to incapacitate violent offenders. In theory, such a weapon could render the sidearm obsolete and completely change the way peace officers respond to violent offenders.

Use of Force

The use of force by law enforcement officers is an issue that always attracts the attention of supervisors, managers, chief executives, community and the media. When this force results in death, district attorney and politicians can be added to this list. The Rodney King incident was nationally known and the media even covered the comments of the President of the United States regarding that incident. These entities are especially critical when a death is caused by use of a less lethal weapon. With the development and publicity of various types of weapons, the use of deadly force has become somewhat

⁵ Douglas Pasternak, Weapons, *U.S. News & World Report*, 7 July 1997, 40.

controversial.⁶ The community and the media are now starting to ask, did law enforcement have less lethal weapons available, and, if so, why did they fail to use less lethal weapons? Why did the peace officer escalate to deadly force? Officers must decide what type and level of force to use, and in most cases, in a very short period of time. Those decisions are then critiqued and second-guessed by supervisors, managers, attorneys, media and the public. Ironically, these critiques take place in comfortable offices with unlimited time to decide if that officer made the correct decision.

This project will use literature and interviews with experts in the field to begin discussions on the topic matter. The process used is known as a Nominal Group Technique (NGT), and was conducted to project future trends that could have an impact on this project issue statement and therefore the law enforcement profession. Using the NGT, three scenarios will be utilized to reflect future outcomes regarding the use of less lethal weapons as a force option in the arrest of violent individuals.

Medium size law enforcement agencies will need to constantly evaluate the need to purchase or update their less lethal weapons. The next section of this project will demonstrate there are multiple potential trends and events that could impact the practicality and necessity for the purchase and use of these weapons.

⁶ Lisa O'Neill Hill, Mom Criticizes Police Tactics in Son's Death, *The Press Enterprise*, 8 January 2003, B3.

CHAPTER TWO

FUTURES STUDY

Nominal Group Technique

In the introduction section of this paper, information was presented to examine the issue of less lethal technology and how the advancements may change or alter how peace officers use force against aggressive or violent individuals. The following information will provide analysis regarding potential trends and events that could have an impact on the topic subject. This section will use a Nominal Group Technique (NGT) method for that research. This process will identify numerous trends and events as suggested by a diverse panel comprised of individuals within and outside the law enforcement profession. The individuals were selected because of their reputation, knowledge, and expertise within their individual fields. Once these trends and events were identified, they were analyzed and evaluated.

In April, 2003, a Nominal Group Technique (NGT) process was held at the Cypress Police Department. Participating in this process were nine individuals from the field of law enforcement, city, community, vendors, and schools. The participants consisted of two police lieutenants, one police sergeant, one human resource director for a major business, one police equipment vendor, one emergency services coordinator, one assistant finance director, one police support services manager, and one high school principal. In addition to the panel, one police department secretary was present to assist with documentation of the NGT process. The goal of the NGT was to identify trends and events that

could have an effect on the issue statement listed at the beginning of this paper. The panel was provided with a packet of information prior to the NGT. This packet of information contained a description of the process, issue statement, and two news articles related to the topic. At the beginning of the NGT process, all of this information was again explained and the panel members were provided the opportunity to clarify any issues prior to beginning.

Trends

The table below summarizes the findings of the group regarding the selected trends. The facilitator explained that a trend was a series of incidents or events taking place, which seem to indicate a direction in which a particular issue may be heading. The group was also told that trends are non-directional. The group identified several potential trends. All trends identified by the group are listed in Appendix B. Those trends were then prioritized with each member selecting their ten top picks of trends they felt would most impact the issue. Listed in the table below are the ten most selected by the nine-member group.

The column identified as “Today” is the benchmark for all of the other columns. The “Today” column represents an arbitrary value representing the current level of that particular trend. Using that benchmark, the panel members were asked to reflect back five years. They were then asked to indicate the status of that trend five years ago in relation to today. That number is reflected in the column marked “-5 years.” The panel was then asked to project out to five and ten years into the future, and give their opinion where they feel the trend will

be at that time. Those numbers are reflected in the “+5 years” and “+10 years” columns. The last column marked “concern” is the level of concern relative to the issue statement. The totals below are the mean of the nine numbers gathered from panel members in each section.

Table 1
Trend Summary Table

Trend	- 5 years	Today	+ 5 years	+ 10 years	Concern
Trend 1 – The complexity of the less lethal device	95	100	101	102	4
Trend 2 – Media’s reporting of less lethal technology	81	100	116	121	5
Trend 3 – Criminals response to officers with less lethal weapons	83	100	117	125	6
Trend 4 – Communities expectation to use less lethal weapons	74	100	131	159	6
Trend 5 – Cost of less lethal weapons	94	100	128	150	7
Trend 6 – Liability for not having or using less lethal weapons	86	100	127	158	9
Trend 7 – Training regarding use of less lethal weapons	81	100	126	142	7
Trend 8 – Legislation regarding use and training of less lethal weapons	81	100	126	144	9
Trend 9 – Less lethal weapon that is 100% effective	93	100	107	110	5
Trend 10 – Injuries to people by less lethal weapons	95	100	101	102	8

Trend Analysis

Trend 1 - The complexity of the less lethal device. This trend dealt with the continued development of less lethal weapons. The panel felt that there was a potential that the technology could get to the point that working the device would require too much training and would be too complicated to be beneficial to the organization. During the evaluation of this trend, the panel did not feel that there had been very little change in the past 5 years, but that there was a possibility that there could be a change in the future. Their level of concern regarding this trend's impact on the issue was relatively low with a mean of 4. One panel member placed the level of concern high with a rating of 8. During the discussion, the panel member felt that if the technology became too complex, it could impact the effectiveness of the weapon. They felt that the weapon could become so specialized that only larger departments might be able to dedicate the time or people to train and utilize the device. The other eight panel members rated the level of concern as low as a 2 and as high as 5.

Trend 2 - Media's reporting of less lethal technology. The panel felt that the media would take advantage of reporting about new types and advancements in less lethal technology. The group as a whole felt that 5 years ago the media did less reporting of advancements in the area less lethal technology. They also agreed that there would be a gradual increase in the reporting of technology associated with less lethal devices. The level of concern among the panel varied between 3 and 9. Two of the members rated the level of concern at 7 and 9. They explained that the media plays a significant role in

influencing communities and sometimes organizations. The group felt the media does influence society, and their reporting (positive or negative) of less lethal technology should be monitored. These two individuals felt that through open communication and training, there was a possibility of influencing the media. Additionally, there were two panel members who placed the level of concern at a 3 and 4. These two panel members felt that there was no way to influence the media, and therefore, police organizations should not concern themselves with that trend.

Trend 3 - Criminals response to officers with less lethal weapons. How criminals, over time, will respond to peace officers with less lethal weapons was of interest to the panel. The group discussed the possibility of an increase and decrease in attacks on peace officer due to the availability of less lethal weapons. This trend involves the continued use of less lethal weapons on the criminal element. The NGT panel felt that hardened criminals being continually exposed to less lethal weapons may realize, and be able to ignore the pain and psychological effects. The panel felt that criminals could become desensitized and have the ability to continue their violent actions or attacks on police officers. Overall, the group felt that there has been a slight increase in the past 5 years and there would be a modest increase over the next 5 and 10 years. Members in the group varied in their level of concern with the lowest rating of 3 and the highest rating 10. The group member that gave it a 3 felt that the psychological aspect would always be there and that most repeat offenders know about less lethal. That member felt that if it were effective once it would continue to work.

Three of the group members rated it 8 and above, with one giving it a 10. These individuals felt that as these criminals become more educated, they will not allow the psychological impact to affect them. They felt that it was important to track this trend and to continually evaluate weapons and practices to stay one step in front of that criminal element. The remaining members placed the level of concern in the middle at 5 and 6.

Trend 4 - Communities' expectation to use less lethal weapons. This trend dealt with the expectation of the public regarding the police use of less lethal weapons. With the continued publicity and success of every less lethal deployment, the group felt that the public would come to expect that the police would use less lethal prior to any use of deadly force. There was also discussion that the public may even get to the point where they demand that peace officers use these weapons. This expectation would be most prevalent from surviving family members of suspects killed by peace officers.

Of all 10 trends, this one received the lowest rating in the –5 years category. The group felt that there was definitely less of an expectation by the public for law enforcement to use these weapons five years ago. The group also felt that there would be a significant increase over the next 5 to 10 years. As with the “–5 years” category, the +5 and + 10 categories for this trend were higher than any of the other trends.

Even though all of the above categories were high, the mean level of concern was only a 6. Most members of the group, in the concern area, were in the 5 to 7 range with one member giving this area a 3. Two of the panel

members gave ratings of 9 and 10. The member who rated it a 3 felt that the public would not care how the job was done as long as there were positive results. The members who gave the highest ratings felt that this needed to be monitored because the community's expectations could change the way departments conduct business.

Trend 5 - Cost of less lethal weapons. The entire group felt that the cost to purchase current and future less lethal weapons would continue to increase. They did not feel that there has been a drastic increase in the past 5 years, but a steady incline. In the same respect they felt that those increases would continue at a steady level over the next 5 and 10 years. All members of the group felt that this trend should be tracked and monitored at some level. The lowest rating was a 5 and the highest rating was an 8. Five of the group members rated the level of concern at 7 and 8.

Trend 6 - Liability for not having or using less lethal weapons. The group discussed two aspects of this potential trend. The first was the potential of increased liability for not having, or not using, less lethal weapons. The second aspect was the possibility of having a reduced level of liability for the organization if they used less lethal weapons prior to escalating to a higher level of force. The group felt that there has been very little change in the past five years. They did agree that there could be the potential of an increase in the next 5 and 10 years. The potential increase was related to the possibility that organizations could have a reduced level of liability if they used a less lethal weapon prior to escalating to a higher level of force. Either with the first or second scenario, the group rated

the level of concern very high. Eight of the panel members gave this a rating of 9 or 10. The panel as a whole felt that any type of liability to an organization is important to monitor and track. This trend, and Trend 9 received the highest rating from the group for level of concern.

Trend 7 - Training regarding use of less lethal weapons. The group discussed the possibility of training increasing to maintain proficiency with less lethal weapons. The group discussed both issues regarding training, if it remained the same and if there was a considerable increase. All felt, no matter what the trend, training was extremely important. They felt that the best way to reduce liability to the officer deploying the weapon, as well as the organization, was to have good training. As a group, they felt that there had been an increase in training related to the use of less lethal weapons. They also felt that the trend would continue over the next 5 and 10 years. The panel felt that as the weapons became more sophisticated, additional training would be required to maintain proficiency with that weapon. Most panel members felt this should be an area monitored, with six of the members rating it 7 or higher. One panel member rated it very low, giving it a 2. That individual felt that the level of training will remain consistent.

Trend 8 - Legislation regarding use and training of less lethal weapons. This trend dealt with legislation that would force law enforcement agencies to provide a minimum amount of training to every officer who was authorized to use less lethal weapons. The group felt that there would be more legislation regarding less lethal weapon training over the next 5 and 10 years.

They also rated it very high in the concern area. Seven of the nine members rated this at 8 or higher. The group did not feel that there was much that could be done to change or alter this trend should it occur, but felt that it could have a significant impact on an organization, and should therefore be monitored.

Trend 9 - Continued progress towards a less lethal weapon that is 100% effective. Currently, there is no less lethal weapon that is effective on 100% of the people it is used on. The panel felt that there has been some progress towards that weapon in the last 5 years. Additionally, they also felt that there was a small possibility that it could be developed in the next 5 or 10 years. Overall, the level of concern was not high. Two of the group members rated it high and felt that, if it was developed, that criminals may have access to these weapons and would use them to commit crimes or assault the police. It was for those reasons they felt that this area should be tracked. The remaining members felt that it would not occur and therefore should not be tracked.

Trend 10 - Injuries to people by less lethal weapons. The panel felt that if less lethal weapons cause significant injuries to people, there could be restrictions placed on their use. They felt that there has been very little change in the past 5 years. They also felt that there would be only slightly more change in the next 5 and 10 years. In the area of concern, the group did feel that the injuries to subjects were important to monitor. They also felt that less lethal weapons were effective, and, if injuries did occur, it would be from misuse or inadequate training.

Events

The table below summarizes the findings of the group regarding events related to the topic issue. It was explained that an event is a singular occurrence at a specific date and time. Events for forecasting future cannot have occurred and would have a positive or negative impact on the issue. After a round table discussion, the group identified several events related to the topic that might have a significant impact on the future of that issue. All events identified by the group are listed in Appendix C. Those events were posted and each member of the group selected ten events that they felt were the most important. The top ten events, as identified by the group, are listed in the table below.

The group then evaluated those events. The members were asked to identify when they thought that each specific event could possibly occur. They were told that if they felt that the event could happen within the next year to put the number 1 in the column marked "Year>0". If it was not likely to occur in the first year then they were instructed to write how many years it may take for that event to occur. The numbers obtained from the group were recorded and the mean documented in the column marked "Year>0" in Table 2. The group was then asked to rate in percentage the likelihood the event could occur in the next five and ten years. Those percentages were also recorded and the mean documented in the "+5 Years" and "+10 Years" column. The last column, "Impact -10 to +10" is the impact that the specific event would have on the issue statement. The numbers from the group were recorded and the mean is listed in the table below.

Table 2

Event Summary Table

Event	Year>0	+5 Years	+10 Years	Impact -10 to +10
Event 1 - Rodney King use of force	2	63	88	+5
Event 2 – Riot/Civil unrest	2	74	88	+5
Event 3 – Military use of less lethal weapon	1	93	93	+6
Event 4 – State and city budget cuts	1	89	92	-5
Event 5 – Law requiring use of less lethal	4	22	33	+2
Event 6 – Case decision prohibiting use of specific less lethal weapon	4	27	45	-5
Event 7 – Blue Ribbon Committee dictates less lethal weapon to use	5	28	52	0
Event 8 – Fatal shooting incoherent person	2	61	79	+3
Event 9 – 100% effective less lethal weapon	8	0	11	+9
Event 10 – Televised incident of a death by means of less lethal weapon	2	47	66	-5

Event Analysis

Event 1 - Similar to Rodney King use of force. The force used on Rodney King is nationally known, and there were different methods of

unsuccessful less lethal weapons used against Mr. King. The panel felt that a similar event could have an even greater effect on the issue. The group felt that such an event might occur within the next two years. As far as the likelihood of the occurrence in the next 10 years, the group was all somewhat in consensus. They felt confident (88%) that the event would occur within the next 10 years. All but one member felt that there would be a moderate impact on the issue statement. One member rated it a +8. They felt that another incident like the Rodney King arrest would lead to better technology being developed for law enforcement.

Event 2 - Riot/Civil unrest. This event addressed a major riot, civil unrest and protests with violent individuals. Again, the group was in consensus that this event could occur within the next 2 years. Six of the panel members felt that it was likely to happen within the next year. All members gave high percentage ratings that this event would occur in the next 5 or 10 years. All panel members believed the impact would be positive on the issue. There was only one member who was in disagreement with the group. That individual had no experience in law enforcement and was from the private sector.

Event 3 - Military use of a new less lethal weapon. Since many of the current less lethal weapons were originally designed and tested by the military, they felt that continued use of current and new weapons would have an impact on this issue. With the current war in Iraq, all were confident that this would occur

within one year. In both the +5 and +10 year category the group gave this a 93% likelihood. They felt that this would have a positive impact on the issue statement. The widespread use of successful less lethal weapons by the military could only lead to increased use by law enforcement.

Event 4 - Significant state/city budget cuts. Almost every city, and the State of California, are either suffering from budget deficits, or potentially having budget problems. The group felt that within a year cities would experience significant budget cuts. The number in the +5 and +10 years columns indicate that the panel felt that there was a good chance that it would occur in 5 years and even more confident that it would happen in the next 10 years. The overall consensus of the group was that this event would have a negative influence on the issue statement. This is noted by the -5 in the impact column. One of the members felt that the impact was 0 and that law enforcement agencies would find a way to purchase these weapons despite budget cuts.

Event 5 - Law requiring use of less lethal. This event dealt with legislation that peace officers would be required to use less lethal force prior to using a higher level of force. The panel felt that there was a likelihood that it could occur in 4 years. They did not feel very strongly (22% at 5 years and 33% at 10 years) that it would happen. Two of the members rated it high (+9 and +10) on the impact area. Those members felt that by requiring use would also require organizations to purchase these tools. One member rated it a -10. They felt that

it could discourage individuals from wanting to go into the law enforcement profession.

Event 6 - Case decision prohibiting use of specific less lethal weapon.

The event was a case decision that would prohibit the police from using a less lethal weapon. The group decided that this event would prohibit a less lethal weapon that had been field-tested and proven to be effective on many individuals. Again the group felt that this event could occur in as few as 4 years. They felt that there was a 27% chance it could occur in the next 5 years; that climbed to a 45% chance in the next 10 years. The group was in consensus that this would be a negative influence on the issue. During the discussion of this impact, panelists felt that it would be very limiting, taking away some valuable tools from peace officers.

Event 7 - Blue Ribbon Committee dictates which less lethal weapon to

use. The group selected an event where a committee is put in place to examine and set standards and guidelines for less lethal weapons. The NGT panel felt that this could occur by year 5. The rating was slightly higher than in Event 5, with a 52% chance by year 10. The group was not as consistent regarding the impact. The rating ranged from +5 to -8. A mean of the numbers shows an impact of 0. The panel members that gave it a minus rating felt that it could “tie the hands” of peace officers and would therefore have a negative effect on law enforcement agencies. Those who gave it a plus rating felt that the committee

would identify good tools for law enforcement they would be required to buy these weapons.

Event 8 - Another fatal shooting of an incoherent person. The actual event discussed was the Tamisha Miller shooting in Riverside, California. This was a shooting where police were called regarding a female unconscious in a vehicle. As they approached they found the vehicle locked with a female inside, possibly unconscious. Also in the vehicle was a handgun. While officers were attempting to wake the female, she reached for the gun and was shot and killed. They felt that another similar incident could occur by year 2. They also felt that there was a high percentage that the event would occur in the next 5 or 10 years. They felt that an event like this could have a positive influence since it could raise the awareness of the need and use of less lethal weapons.

Event 9 - 100% effective less lethal weapon. This event would be the design and development of a less lethal weapon that is effective on every person. Currently there is no one less lethal weapon that is effective on every person. All panel members were not very optimistic that this technology could ever be developed. Four of the panel members felt that it will never happen. Four other members felt that it would be 10 years and greater. All members gave it a very low percentage that it would happen in 10 years. Additionally, they all felt that the positive impact would be very high, +9.

Event 10 - Televised incident of a death by means of less lethal weapon. The press seems to be everywhere with pictures of newsworthy events. The NGT panel felt that in 2 years there could be a televised incident of the death of an individual by means of a less lethal weapon. They felt that there was a fairly high percentage (47% at 5 years and 66% at 10 years) that it could occur. The group also felt that it would have a negative influence on the issue. The panel felt that this event would impact future developments and advancements.

Cross Impact

The cross impact analysis examines how events will affect each trend. For example, if Event One occurs what impact will that have on Trend One? If Event One occurs what impact will it have on all of the other trends? The facilitator and one other member conducted this analysis. That other individual was part of the NGT process and a current classmate in Command College. Additionally, each event and trend was examined individually and a determination was made on how that event would impact the trend. Each event and trend was assigned a number of one through five, and whether it would have a positive or negative effect. A positive number for the event would have a favorable impact on the trend. A minus number for the event would have a negative effect on that trend. The higher the number the greater effect that event would have on the trend. Listed in the table below are the results of that evaluation.

Table 3

Cross Impact Table										
Event	Trend									
	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
E1: Rodney King use of force	0	+3	0	-2	0	-3	0	-1	+3	0
E2: Riot/Civil unrest	0	+3	+2	-2	0	-3	0	-1	+3	-2
E3: Military use of less lethal weapon	-1	+2	+1	-3	-2	-1	-1	-1	+2	0
E4: State and city budget cuts	0	0	0	0	-4	-2	-1	0	-4	0
E5: Law requiring use of less lethal	0	-2	-1	+2	0	-4	-1	0	0	-1
E6: Case decision prohibiting use of specific less lethal weapon	0	-2	0	0	0	0	0	0	0	0
E7: Blue Ribbon Committee dictates less lethal weapon to use	0	0	-1	-1	-2	-4	0	+2	0	0
E8: Fatal shooting incoherent person	0	-5	0	-3	0	-4	+2	-2	0	0
E9: 100% effective less lethal weapon	+5	+3	+5	+5	-3	-5	0	+3	0	+5
E10: Televised incident of a death by means of less lethal weapon	+1	-5	+2	-3	0	0	+4	-2	+4	-2
Trends										
Trend 1: The complexity of the less lethal device										
Trend 2: Media's reporting of less lethal technology										
Trend 3: Criminals response to officers with less lethal weapons										
Trend 4: Communities expectation to use less lethal weapons										
Trend 5: Cost of less lethal weapons										
Trend 6: Liability for not having or using less lethal weapons										
Trend 7: Training regarding use of less lethal weapons										
Trend 8: Legislation regarding use and training of less lethal weapons										
Trend 9: Less lethal weapon that is 100% effective										
Trend 10: Injuries to people by less lethal weapons										

Cross Impact Analysis

Event 1 - Rodney King use of force. In most areas it was determined that this event would have little or no effect on the trend. There were three trends (2, 6 and 9) that would be significantly affected if this event occurred. In

Trends 2 and 9, there is a +3. It is felt that the media would be positive about the use of other weapons of force and that another incident similar to Rodney King would accelerate the development of a 100% effective less lethal weapon. Trend 6 has a high minus rating. It is believed that there would be increased liability to law enforcement agencies for not using or having other more appropriate methods of force.

Event 2 - Major riot or civil unrest. The highest ratings were in the area of Trends 2, 6 and 9. Again the rationale for these ratings is the same as listed in Event 1. Trends 4 and 10 were a -2. It is believed, should a major riot or civil unrest occur, the community would expect that peace officers would use a method of less lethal force to quell the riot. In Trend 10, there would most likely be more injuries as a result of less lethal weapons. This is due to the number of violators and the weapon used. It is believed that the injures would have a negative effect on the reputation of peace officers and the organization.

Event 3 - Military use of a less lethal weapon. If the military use of less lethal weapons occurred, it was determined that the most drastic affect would be on Trend 4. That trend received a -3. If the military is using less lethal the community would expect, and possibly demand, that law enforcement use those types of weapons. Based on the financial status of that organization, those weapons may not be affordable. This could cause negative feelings on the part of the community towards law enforcement.

Event 4 - State and city budget cuts. There were two trends that would be affected significantly if there were significant state and city budget cuts.

Most trends would not be affected if this event occurred. Trends 5 and 9 both were rated at a -4. Trend 5 would be an issue since organizations would not have the funds to purchase less lethal weapons. Regarding Trend 9, cities would not have the money to purchase these weapons if they were designed. A weapon that is 100% effective would most likely be expensive.

Event 5 - Law requiring the use of less lethal. Most areas would have little or no effect. One trend that would be affected in a negative way is Trend 6. If there was a law that required that peace officers use less lethal weapons, the liability for not using or having less lethal weapons would definitely increase.

Event 6 - Case decision prohibiting use of specific less lethal weapons. It is believed that this event would have little or no effect on any of the trends.

Event 7 - Blue Ribbon Committee dictates less lethal weapon use. This event had a high minus rating for Trend 6. Again the rationale for this rating is the same as Event 5. The liability for not having or using less lethal weapons would significantly increase.

Event 8 - Fatal shooting of an incoherent person. This event received the highest rating on Trends 2 and 6. Those ratings were both in the minus category. This event would be similar to the Tamisha Miller shooting in Riverside, California. It is believed that the media's reporting on the event would be negative, and law enforcement would be heavily criticized for not using a lesser means of force. The liability for that incident would be significant.

Event 9 - 100% effective less lethal weapon. In most of the areas, it was determined that there would be a positive influence on the trend if a less lethal weapon was developed that was 100% effective on everyone. The areas of negative influence were related to Trends 5 and 6. If the perfect less lethal weapon were developed, the cost (Trend 5) would most likely make that weapon unaffordable for most law enforcement agencies. Organizations would have to find the funds to purchase these devices for their officers. With the current, and most likely future budget problems, this could be a negative issue. Additionally, if this perfect weapon did exist one could expect increased liability for those agencies that were forced to use some other means of force to subdue an individual. The evaluators felt that there would be no effect to Trends 7 and 9 if this event occurred.

Event 10 - Televised incident of a death by means of a less lethal weapon. There were three trends that would be impacted if this event occurred. Trends 7 and 9 had a positive effect of +4. As a result of this event, there would be an increase of training, and any training is a positive. It would also accelerate the research to find a better weapon. Trend 2 was rated at a -5. The media's reporting of that incident would be very negative for the organization and the law enforcement profession.

Future Scenarios

The Nominal Group Technique process produced a number of trends and events that could influence or impact the use of force related to advancement in

less lethal technology. Given the various possibilities, three separate scenarios were created to illustrate potentially different outcomes related to less lethal technology.

The optimistic scenario will create a positive picture should an ideal set of circumstances happen. It will take the reader to a best case incident should certain types of less lethal technology be developed and acquired by law enforcement. The normative scenario will take into account the current environment regarding less lethal technology and will suggest a likely future should developments and policies remain constant. The pessimistic view is the worst case scenario. It will take events or technology and paint a picture of what could happen if the best ideas and technology took a turn for the worse. All three scenarios will use ideas presented in the Nominal Group Technique process.

Scenario #1 (Optimistic)

On January 1, 2007, at 0001 hours, officers from the Cypress Police Department responded to a report of a male subject standing in the street firing a handgun. The subject was reported to be in the 4700 block of Myra Street. The male suspect was reportedly shooting the weapon into the air and ground. As the officers responded, the nineteen-year-old brother of the suspect contacted the officers. He told the officers that his brother is a sixteen-year-old mentally retarded male. The suspect had found his father's loaded handgun underneath their parents' bed. The subject also told the officers that his brother has a mental age of a seven-year-old.

The older brother was detained and the officers attempted to negotiate with the mentally retarded suspect still waving the handgun around, but not firing at the moment. The handling officer advised all assisting units to move back so he could deploy less lethal. The police department had recently purchased the latest less lethal technology. These weapons, developed by the military, use high frequency sound and bright light to completely disable an individual. The effect on the body causes nausea, vomiting, complete loss of all bowel control and, ultimately, disorientation. The effects are only temporary, causing no permanent damage. The effects are so intense that the individual is no longer able to think or function, and they simply collapse.

The officer deployed the device just as the suspect started to point the handgun at citizens who had gathered in the area. The suspect immediately dropped the weapon and fell to the ground. Officers were able to approach and take the suspect into custody. The sixteen-year-old male was transported to a hospital for medical treatment and evaluated by mental health professionals.

Had it not been for this newest piece of technology, the officers would have had no other alternative but to use deadly force on the mentally retarded teenager.

Scenario #2 (Normative)

A recent article in the Orange County Register in November of 2008, indicated every police agency in the Orange and Los Angeles counties now have

less lethal weapons. Most agencies utilize several different types of these devices.

Only five years ago most police agencies possessed only the basic less lethal tools, such as pepper spray and impact weapons (batons). Over the past five years with the development of new technology and the reduction in the cost of these weapons, several have become affordable to even the smallest of agencies. As a result of state budget cuts and the standards and requirement set forth by the Governor's Blue Ribbon Committee on less lethal weapons, the federal government made grant funds available specifically for the purchase of these less lethal weapons.

In checking the statewide less lethal database, there has been a constant increase in the use of these devices. This database reflects whether deadly force was justified in reported incidents and also indicates type and effectiveness of the less lethal weapon used by the police. Statistics indicate that the police were justified in using deadly force 68% of the time that the less lethal weapons were deployed. This is a 15% increase from the past year. Regarding the effectiveness, less lethal weapons were effective 88% of the time. This is a 13% increase from the previous year.

Scenario #3 (Pessimistic)

During the 2007 calendar year, legislation was passed that prohibited the use of specific less lethal weapons. The legislation was a result of a class action lawsuit filed by the American Civil Liberties Union (ACLU) against several

Southern California law enforcement agencies. The ACLU was successful in a multi-million dollar judgment against those agencies. As a result of that legislation, a research and study in the use of force was conducted. The results of the study found the following:

- Use of force incidents had increased
- Increase in use of less lethal weapons
- Increase in force used on passive non-compliant offenders
- Increase in civil actions against law enforcement agencies related to use of force

It was during that same year, the Cypress Police Department experienced a 90% increase in their use of force incidents. In examining the increase, information revealed that almost all of the incidents involved the use of one of the less lethal weapons utilized by the Cypress Police Department. Information also revealed that the weapon used was effective 92% of the time. Over the past three years, the Cypress Police Department has purchased and issued several of the latest less lethal weapons to every officer. The purchase of these devices has come from grants or general funds. The police department found that officers are hesitant to make physical contact with suspects, opting to use a less lethal device to render the suspect safe on some occasions. Officers are using these weapons on suspects who are just verbally resisting.

The police department has suspended the use of these less lethal devices. The police department is considering putting restrictions on the use of other less lethal weapons currently used by the officers. The police officers

employee association has threaten lawsuits and a job action against the department if they restrict the use of these tools. The police officers employee association is accusing the department of creating an unsafe working environment for the officers.

The objective in building futures scenarios is to provide analysis regarding the trends and events that have the potential to impact the success or failure of the organization's attempt to manage future use of force options. In order to realize the desired scenario, a strategic plan must be developed that will allow law enforcement to transition from current day position to a futuristic one.

In the next chapter, a strategy will be presented to accomplish law enforcement's goal of developing the best less lethal weapon. Chapter Three will examine and identify stakeholders who will assist with accomplishing this goal. It will also look at strengths, weaknesses, opportunities, and threats that can help and hinder this process.

CHAPTER THREE

A STRATEGY FOR THE FUTURE

In Chapter Two, there were three potential future scenarios regarding less lethal weapons. The development of future scenarios is designed to create futures thinking for the stakeholders who can make or influence change. Each of these scenarios and their potential future outcomes could be faced by a medium sized urban police agency. The most likely of these scenarios to occur would be the second, or normative scenario. Obviously, the most desired scenario and future outcome would be the optimistic.

Using the information obtained in the Nominal Group Technique, and the optimistic scenario, a strategic plan will be developed and presented providing a means of transition for organizations desiring to prepare for advancements in technology in the area of less lethal weapons. This plan will include the current environment and conditions for a medium size agency. An analysis will be presented detailing the Strengths, Weaknesses, Opportunities and Threats (SWOT) that will help or hinder implementation of the desired outcome. Additionally, an assessment of the stakeholders and a synopsis of possible strategies for implementing a proposal will be presented that would benefit organizations having to face this issue.

The Current Environment

Currently, most medium size law enforcement agencies have some type of less lethal weapon for officers. The Cypress Police Department presently has

five types of less lethal weapons available to all police officers. Those weapons are, baton, Oleoresin Capsicum (pepper spray), beanbag shotgun, 37mm less lethal projectiles, and TASERS. With the wide variety of types, makes and price, there is no standard tool that all agencies deploy in the field. Additionally, with the continued advancements in technology, some agencies are finding they have less lethal weapons that are now outdated due to the development of newer models of the same weapon, or replacement by a weapon made by another manufacturer. There are some agencies, due to financial difficulties and past practice, that have resigned themselves to using these outdated and less effective weapons.

In the past law enforcement has generally failed to take full advantage of the latest technology available, opting instead to 'make due' with conventional and sometimes even obsolete tools.⁷

Successful agencies are frequently having their personnel evaluate the need for replacement and update of current weapons. This is necessary if they are to be good stewards of their money.

The current political climate and support by the public favor changes in the force used by peace officers. Agencies and individual officers are frequently critiqued, and many times criticized, for their actions. Politicians, the public, law enforcement agencies and peace officers are, for the most part accepting of change. Taking into account the terrorist events of September 11, 2001, and the support of the public and politicians, now is a perfect time to work with private agencies in developing new less lethal weapons.

⁷ Sid Heal, Captain Los Angeles Sheriff's Department, Sheriff's Department Explores Technology, *Law and Order Magazine*, June 2000, 57.

SWOT Analysis

A SWOT analysis is meant to identify and assess the strengths, weaknesses, opportunities, and threats that could impact the strategic plan. It is important to identify these areas so that an effective strategy can be developed. Strengths and weaknesses are internal within the agency or law enforcement field. Opportunities and threats are external, from outside the agency that can exert influence, either positive or negative.

Strengths

- For the most part the Cypress Police Department is progressive and innovative in their approach to law enforcement.
- They have an interest and desire in the continued development of less lethal weapons.
- There is willingness by the agency executive to accept change in equipment and procedure.
- The decrease of injury or death to suspects reduces liability to the police agency.
- Civil lawsuits are less frequent due to lower level of force being used.
- Injuries to officers are reduced as a result of less physical contact with violent offenders.
- Confrontations between violent individuals and police officers are decreased.

Weaknesses

- Reluctance of line level personnel to accept change.
- Increased training of personnel regarding devices and application of force.
- Limited devices available to police officers in the field.
- Law enforcement reluctant to include outside influences in decision-making.

Opportunities

- New technology would have an impact on use of force by police officers.
- The political climate to purchase and use these tools is strongly supported.
- Federal and state grant opportunities related to the purchase of equipment and technology.
- Reduced insurance cost and premiums to cities as a result in reduction in civil law suits.
- Consolidation of like size agencies and personnel to purchase and make devices available.
- Cost savings by consolidation efforts.
- Viewpoint of individuals outside the field of law enforcement.
- Research and advancement in less lethal technology is ongoing.

Threats

- Current local and state financial crisis.
- Increased liability for failing to use or carry weapons.

Stakeholder Analysis

Stakeholders are individuals, groups, or organizations who have a vested interest in the outcome of a future scenario. These stakeholders would have an ability to help, support, or obstruct an agency in the attainment of goals and objectives for the scenario.

The stakeholders identified for this project are as follows.

Internal Stakeholders

Chief of Police

Executive staff and management group

Sworn, first line supervision and line level personnel

Police officers' association

External Stakeholders

City Manager

City Council

Congressional and Senate members

Influential members of the community

Lawyers and civil attorney's

Researchers/military

Vendors

Media

Violent offenders (suspects)

The internal stakeholders, for the most part, would be supportive of almost any type of advancements in technology that would minimize or change force options in their favor. The first line supervisor and executive staff would need to have or develop the trust of line level personnel to get their buy-in with every new piece of technology. This will become easier in the future as more Generation X and Generation Y employees enter law enforcement. These two generations are more educated, accepting of change, and have grown up in a technological world.⁸ To garner support from external stakeholders, police executives will need to be vocal about the successes and support of new technology and changes in their organizations force options. Additionally, whenever possible, these external stakeholder need to be involved in the decision and selection process.

The biggest potential stumbling block would be the line level personnel and police officers' associations. This is the group that will be deploying the new weapons and having to accept the changes. Reluctance or refusal to do so could result in the failure of a specific weapon and failure to make the desired changes. Just like the executive staff influencing the public, the line level personnel could also have an effect. The peace officer has more contact with the public than any other individual in the agency. A positive or negative opinion on a program or equipment would quickly spread throughout the community. This opinion would directly influence members of the community.

External stakeholders will have an entirely different perspective on this issue. The external stakeholders may have the most significant impact on the

⁸ Kim Charrier, Sergeant, Marketing Strategies for Attracting and Retaining Generation X Police Officers, *The Police Chief*, December 2000.

success of the issue. Without the help from some, and support from others, agencies will not be successful in the use of these new weapons. Being unsuccessful may discourage any future research and continued development.

An example of this would be the media taking a negative stance and using their influence to slant a particular view in a specific direction. Additionally, political bodies could help or hurt depending on the climate of the community. Politicians, in their need and desire to get elected or reelected, will support issues popular at the time. If the technology is favorable, it will receive support from politicians. Conversely, if the technology is unfavorable, it will not be supported, publicly or financially to make the program, policy, or tool successful.

Another possible stakeholder is the violent offenders who peace officers are called upon to deal with. Currently, violent offenders know that possession of a deadly weapon when confronted by a peace officer could result in that officer using deadly force against him. Should these offenders realize that law enforcement is restricted in the use of deadly force, this could cause these individuals to use deadly weapons against officers to prevent capture/arrest. The criminal element would know that an officers first option is less lethal and therefore would have less fear of any deadly consequences.

As with many other issues, the community will have a voice in this matter. The manner in which the law enforcement administers force will have an impact on community members, and the amount and level of force can affect the financial stability of the city. If a city has to pay out large sums of money for civil

lawsuits, this could also impact non-essential services (i.e., D.A.R.E. and Community Relations).

Strategy Development

Utilizing information obtained in the Nominal Group Technique and areas listed in strategic planning, such as current environment, SWOT analysis, and the stakeholders, the following strategy options were developed to achieve future outcomes in less lethal technology. It is the responsibility of law enforcement, whenever possible, to assist, encourage, or make change happen.

Strategy One

Law enforcement executives must constantly monitor technological advancements and make an educated decision regarding the purchase and implementation of that technology. The development of technology has never been faster than in the past thirty years. Technology continues to develop and improve faster than ever before. It seems that as soon as a product is developed and marketed, companies are already designing a replacement model. In the past, that window between state of the art and obsolescence was long enough that an agency was able to get full use out of the older item. That window continues to get smaller, and now it seems that by the time technology is purchased and implement it, it is already outdated.

In Strategy One, law enforcement agencies will take a proactive approach in marketing their agency to the community. Law enforcement officials will publicize and promote new and innovative tools and programs. In the past,

agencies would select and implement technology without consultation of city councils and the public because law enforcement enjoyed unwavering favorable support from these two groups. Unfortunately, over the past fifteen years, law enforcement has lost that unconditional respect of the politicians and public. Law enforcement now needs to spend more time marketing not only themselves, but also new programs and equipment. This can be best accomplished by involving community members in committees when possible. Organizations have typically avoided this involvement with the public. Involving as many stakeholders as possible in the selection and decision process will only help in developing valuable partnerships and future support. It will also provide law enforcement with a completely different perspective regarding the future. If law enforcement only consults with members within their own field, they are tapping into a small portion of the important information available for future development. Some of the best inventions and ideas have come from individuals outside the field. Quite often, it is these individuals who can think “outside the box” and who are not locked into the law enforcement paradigm.

In Strategy One first-line supervisors, managers, and executives will develop and maintain a level of trust with line level sworn and civilian personnel. If there is a lack of trust, or a feeling that they are being left out of the process, line level personnel will be resistive to any change suggested or implemented by the supervisor and managers of the organization. It will be the line level personnel who will ultimately determine the success or failure of any new program or technology. As with the community, these individuals are important

stakeholders. Involvement in the selection and decision process, when possible, is very important. Giving this group a say in their future and the future of the organization is very important. Additionally, through training, education, and experience, experts in the field will be able to provide valuable information.

In Strategy One there should be little resistance from stakeholders to implement changes, and the cost will be minimal by using outside individuals to supplement the committee.

Strengths

- Improve image with the public
- Developing partnerships with outside entities that will benefit current and future endeavors
- Tapping into knowledge base outside of the law enforcement arena
- Involvement of most stakeholders, providing them with a say in their future
- Develop trust of all members of the organization
- Providing stakeholders with a say in their future
- Little significant cost for development of a less lethal weapons acquisition plan
- Global look at issues due to a diverse committee
- Little or no financial strain on participating organizations

Weaknesses

- Only meets the current needs of law enforcement
- No voice in research and development of future weapons

- Limited to what is currently available on the market
- Diverse committees are typically slow in coming to consensus

Strategy Two

Law enforcement has always remained in the background regarding development of most technology. This also applies to less lethal technology. History has shown that law enforcement has waited for the military and other private companies to design tools and weapons for law enforcement. Typically, law enforcement will sit back and watch as these developers conduct testing and research on potential new tools and future technology. This is as a result of the high costs associated with the research and design of a new technology. Consequently, law enforcement has virtually no input into the design of that technology. They are faced with taking the technology as is, making modifications to suit the law enforcement arena.

In Strategy Two, law enforcement will break from this tradition and step out of their current method of thinking.

The first goal will be to capitalize on the expertise and financial backing of the military. Law enforcement executives must team up with those in the military arena who are currently developing and testing less lethal tools. This will require that law enforcement personnel be assigned to military research and design centers to provide their expertise to the early stages of weapon development. Ideally, peace officers who are experts in the field of tactical weapons use will be selected to participate in the development program.

An example of this is Sid Heal from the Los Angeles County Sheriff's Department. He is recognized nationwide as the guru of police tactics and less lethal weapons. So much so that he was assigned to the military specifically to assist in teaching law enforcement tactics to soldiers during the war with Iraq. He was there to train soldiers in less lethal force and urban fighting tactics. Captain Sid Heal was selected for this assignment due to his active military reserve status, but more so due to his expertise in these areas.

Individual cities may not have the funding to conduct research and development. It is far too costly. By teaming up with other public and private entities, the funding would be minimal to the cities. In this strategy law enforcement will gain nationwide support from chiefs and sheriffs for the implementation and funding of this program. Once law enforcement individuals are selected, it will be their responsibility to work alongside the weapons developers to design tools and technology that meet the needs of law enforcement.

In Strategy Two, federal grant funding will be pursued so that small and medium size agencies are able to assign personnel to this type of research. The goal in putting together the law enforcement component of the development team will be to find the best the nation has to offer, regardless of how large their agency is. It will be crucial that the individuals selected look at the process as what is best for law enforcement and not what is best for their respective agencies. These individuals will need to have the ability to look at the assignment globally. The law enforcement individuals must be futures thinking.

They cannot develop a weapon for today's needs. Their research and development must be for future needs.

Strengths

- Law enforcement have input in the design of less lethal weapons to be used in the field
- Reduction of costs due to the collaborative effort of many agencies (public and private) and through the acquisition of federal grants
- Development of partnerships for future research and design
- Tapping into a knowledge base outside of the law enforcement arena
- Designing a weapon specifically to suit the needs of police officers and soldiers performing law enforcement duties overseas
- Designing weapons for the future

Weaknesses

- Coming to a consensus with the variety of individuals on the final design
- Loss of specialty personnel (department experts) while assigned to the research team
- Different peace officers coming to a consensus regarding the needs of law enforcement
- Convincing military and private companies that law enforcement can contribute to effective research and design

Selecting a Strategy

Each of the two strategies discussed address the issue of less lethal technology and how the future can be affected by being proactive. Strategy One examines technology that is either currently on the market, or looking at future development. Strategy Two addresses taking a proactive approach in actually altering the development of technology to meet the needs of law enforcement.

If law enforcement uses either strategy, they will be better off than maintaining the current practice of waiting for items to be designed and, then, without any outside assistance, selecting what they feel is best. Too often, law enforcement executives implement change in equipment, policy and training without the assistance of others. It is that failure to look outside of the law enforcement paradigm that causes programs to fail.

The primary difference between the two strategies is that one is futures thinking with no involvement in future outcome, and the other is a proactive involvement in shaping the future. The first strategy deals with current development and weapons available to law enforcement. The second takes a hands-on approach in the development of future less lethal weapons for law enforcement. The second strategy also has the capability to better prepare law enforcement for the future and at the same time develop better weapons.

To obtain the best results for current and future law enforcement needs, agencies will need to utilize both strategies. Strategy One will provide for the current and immediate future needs of an organization. Strategy Two will take time to develop and ultimately resolve the long-term future needs of law

enforcement. Both can happen simultaneously and would not interfere with one another.

Both strategies require outside involvement from either private or government entities that are not typically accepting of outside influences. Law enforcement executives will need to convince military and civilian researchers that peace officers can contribute to the success of future weapons designs.

Until law enforcement begins to participate in the design of their own weapons there may never be a less lethal weapon that is 100% effective on all individuals. To accomplish this task this requires a specific plan that will overcome people's resistance to change. The next chapter will address the next course of action, which is the transition process.

CHAPTER FOUR

TRANSITION MANAGEMENT

Key stakeholders and strategies for the desired futures scenario were identified in Chapter Three. The next step is to establish the transition process to be used for the implementation to occur. Those steps will identify the stakeholders who are most likely, and have the ability, to bring the proposed strategies to fruition. These stakeholders can be individuals or groups. A single person or group will probably not have the ability to influence or persuade the future outcome. However, the stakeholders, working together as a critical mass, would most definitely be able to bring about future strategies. The critical mass is the individuals or groups whose active commitment is necessary to provide the energy for the change to occur.⁹

Those stakeholders who are identified below would have the most influence and greatest ability to affect successful change. The internal stakeholders identified for this project are the sworn members of the police organization. The external stakeholders are finance, city council, community and media. Many of these stakeholders may not directly affect the implementation of any strategies, but without their support, any future scenario would be unsuccessful.

The following table lists all of the stakeholders that make up the critical mass. It will require those stakeholders to work together, if an organization wishes to achieve the best possible results and tap into the greatest knowledge

⁹ Tom Esensten, *Organizational Transitions*, Command College lecture.

base. The chart below is a great tool for plotting a course of action. This visual road map provides those facilitating the process a gauge to where current stakeholders are related to future change. More importantly, it informs those involved where that stakeholder needs to be for the best desired results. The individuals or groups (stakeholders) are listed in the “Critical Mass” column. There are four columns where these individuals or groups can be placed related to current and future levels of assistance or support. In the table, an “X” reflects the current position of that individual or group. An “O” in the table reflects where the individual or group needs to be for the best desired result. The arrow indicates the direction of the desired movement. Some groups within the critical mass do not need to move and are currently in the appropriate area. However, they are listed because of the importance of their support for a successful outcome to any future scenarios.

Table 4

Commitment Planning Table

Critical Mass Members	Block Change	Let Change Happen	Help Change Happen	Make Change Happen
Chief of Police			O ←	X
Police Managers			O ←	X
First Line Supervisors		X →		O
Police Officers Association		X →	O	
Line Level Officers	X →		O	
City Council		(XO)		
Finance		X →	O	
Community		(XO)		
Media		(XO)		

Commitment Planning Analysis

Chief of Police

The Chief of Police typically is the individual who will implement change and ultimately be the final approver of change in policy or procedure. The reputation, of that individual, and level of trust by the organization will decide how

successful that change will be. In this case, it is the purchase of new technology that will ultimately change how line level personnel use force against violent individuals. If the level of trust for the chief of police is high, then the transition to new weapons and changes in procedure will be a smoother process. For the most part, the changes will be accepted on face value. If the level of trust is low, the change will be slow or ineffective. Typically, it is the chief of police who brings about change. The chief of police must develop and foster a relationship where he or she can suggest change and then help that change occur.

Police Managers

There are many different titles for police department managers. These are the individuals between the chief of police and the first-line supervisors. Like the chief of police, these individuals need to develop trusting relationships with first-line supervisor and line level personnel. If that level of trust and respect is high, the transition will be smooth. If that level of trust is lacking, then their credibility and effectiveness with the supervisors and line level personnel will affect the successful outcome of any change. As with the chief, this group usually is in the position to make change. They should suggest and support change and then help it happen.

First-line Supervisors

This is typically the rank of sergeant. These individuals are the most important and influential in making change. This rank is usually a part of the

police officers' association and trusted by the line level personnel. It is important that an organization has a good working relationship with this group. With their support and sincere buy-in one can be assured to have success. Without their support or buy-in, the probability of success is low. This group usually lets change happen depending on their view of change. Since they have the ability to have the greatest effect, they need to use their influence to make change happen.

Police Officers' Association

These associations usually include all sworn and civilian line level personnel. Their relationship with the chief of police will influence the final outcome of future change. Based on their view, police associations can help or hinder change. If their relationship is poor or the group is adversarial, they can effectively block future outcomes. Currently, associations will let things happen. For the most successful implementation, they need to help things happen. This would assure a quicker and more successful transition.

Line Level Officers

This group of sworn police officers is typically the most skeptical and resistive to change. Unless the request for change comes from this group, it is generally not accepted and the transition is slow. Since most change comes from above (sergeant rank or higher), it is usually resisted until that change has

been proven to be good and effective. This group usually has a comfort level with current policy, practice and procedure, and change threatens that feeling of comfort. It is for that reason that they resist change. For a faster transition, line level officers need to accept change and help make it happen.

City Council/Community/Media

These groups currently let things happen and will ideally remain in that position. Any one of these groups, if vocal, could slow or completely block any future outcomes. It is important to develop positive trusting relationships with these groups. Additionally, police departments must maintain open and honest communication and market themselves to all members of these groups.

Finance

Finance departments will allow or at times block change. With any new technology, funding is critical for the purchase, training and implementation of that new piece of equipment. Finance needs to work closely with the police department to seek and provide funding to keep agencies progressive and up to date. They need to understand that spending funds now could result in huge savings from future civil actions as a result of excessive use of force.

Implementation Planning

The possibility of developing better and more efficient less lethal weapons is a reality. With these advancements there will be changes and modifications in how police officers use force against violent individuals. Improvements in these

weapons will require less force by peace officers and a new philosophy on how they perform daily activities. For implementation planning to be successful, organizations will need to begin with the line level personnel who will be most affected by this change. The most effective way to accomplish this task is to start now by developing the relationship and maintaining open lines of communication with this group. The transition must also include their input and participation in the selection of less lethal devices. Organizations must allow qualified experts from their group to assist in the writing of policy for the new technology. This can be accomplished by developing a committee and having peace officers participate in the process. The committee would examine types of devices, cost, purchase, training and implementation. They would also need to look at what is on the horizon to determine if the less lethal weapon is the best on the market, and if it will remain that way for some time. Other potential committee members still include management, finance and possibly members of the community. Having the support of these groups would assuredly help with the success of any implementation planning.

Any change in weapons or change in policy can be expensive. It is important to make the correct selection since funding is typically not available for change. Selecting the wrong less lethal weapon could hurt the organization financially and the working relationship internally. That diminished relationship can result in a lack of confidence and will impact future selection of equipment.

It is important to select the right person as the project manager. This person needs to be respected by others and, if possible, have some expertise in

the area to be examined. Managers that have been involved in law enforcement will agree that change is always difficult, even when that change is perceived as good. The project manager must be able to take a global look at the change and evaluate any unanticipated impacts on other divisions or departments outside the organization.

Whenever possible, the community should be involved at each phase. This will increase public support and foster a partnership and develop a level of trust and confidence. Involving the community also allows for future interaction and develops the department's ability to be successful with future programs. Most of what organizations need to know to be successful will come from outside of their field. Involving the community will allow organizations to tap into other resources outside of their field. There are some cases where the community cannot be involved, but where they can help, both parties benefit from this partnership.

Implementation Strategy

As mentioned in this report, technology is advancing at a very rapid rate. Faster than ever before. At the same time, so is the pressure for peace officers to use less force when dealing with violent individuals. These two areas will most likely lead to more effective weapons that allow officers the ability to subdue and arrest individuals at a safe distance and with less force. This transition may be

gradual or a revolutionary breakthrough. The most likely scenario will be a revolutionary breakthrough from the military. In this event, if peace officers are asked to drastically modify their practices, there will be reluctance or resistance to the change.

To facilitate any type of drastic change in an organization requires trusted and respected leaders. Without proven leadership, the prospect of success is not good. Trust and respect cannot be earned overnight; it must be developed slowly over time. Law enforcement executives need to begin now to develop that level of respect and trust so that, in the future, the transition for change will be much smoother. A good way to facilitate this is by involving first-line supervisors and line level personnel in the decision-making process. This will provide those members of the organizations with some ownership in the decisions and ultimately in implementing change. Having the support at all levels can only make change smoother.

This does not mean that executives relinquish control of the process. They in turn must select one person from the management team to lead that group of employees. That leader can then earn the trust of other committee members and at the same time increase the trust that the line level personnel will have for the management staff. Ultimately, to facilitate a drastic change in how peace officers use force, it is recommended this model be used. It is imperative that the leader of this committee be aware of the vision of the chief of police and

that of the department. They will be responsible for directing and keeping the committee headed in a direction that is in line with the vision of the chief of police and organization.

There are stakeholders who play an integral role in this process. The chief of police has the ultimate say in the equipment purchased and procedures used by sworn members of their organization. It is the chief's responsibility to evaluate the recommendations and make the decision whether to change the method in which officers deal with violent individuals. This also applies to any recommendation to purchase new equipment. The chief of police will need to evaluate the cost of the equipment versus the current need and then ultimately authorize or deny the request.

Another important factor in the successful transition would be to include the individual in the organization who manages or is very familiar with the budget. Being able to solicit advice and information on how funding will occur is vital to the implementation of the program. Having the support of this member of the organization will provide for a smooth transition.

Responsibility Charting

Responsibility charting is a mechanism to identify the responsibilities of each party who will be involved in the project. The table below is an example of a responsibility chart for one phase of the larger project in Strategy Two. The first column lists five tasks within this phase of the project. Using this chart, those who are critical to the success of the project can see clearly what their role should be in each phase of the project's development and implementation.

Responsibility Charting (Working with Military and Developers)							
Decisions	Participants						
	Chief of Police	Management	Finance	City Council	City Attorney	Military	Private Developers
Develop Relationship with External Entities	R	S	I	I	S	R	R
Establishing Structure and Goals for the Team	R	S	I	A	I	R	S
Establish Funding	S	S	R	S	S	R	I
Selecting a Representative	A	I	R	A	I	R	R
Policy and Procedures	R	S	I	I	R	A	I

- Legend
- R Parties responsible for the work
 - S Parties whose support is needed
 - A Parties whose approval is required
 - I Parties to be informed of the actions taken

As with any significant project or change, leadership is vital to its success. The project manager has the responsibility of keeping other supervisors and line level members motivated and focused on the task of the desired future outcome. With any major change or project, there are always risks associated with the choice and decision made by the committee. The leader must be decisive in making decisions and feel comfortable taking those risks. The leader cannot shy away from these decisions. Doing so would create a lack of support among the

group members. The risks, however, are calculated. The risk of failure and the monetary commitment are outweighed by the advantages of having better and more effective equipment, less injuries, and a reduction in civil actions against the police department and their personnel.

Program Evaluation

A good implementation plan will include a means to measure the project's success. This evaluation is very important. Is the strategy working? If the actions taken are working, law enforcement should continue with the process and continually reevaluate the success. If the process is not working, then law enforcement must be willing and open-minded enough to either alter or abandon the process. If the decision is to terminate the project, officials must return to the first step and start over again.

The actual evaluation would require that the law enforcement participants report back regarding their progress throughout the project. This would include, but would not be limited to work completed, work scheduled to be done, and any future ideas or concepts.

Decisions regarding how often these reports should be made are also critical. If they are too often then it may appear that nothing is being accomplished. Developing technology, especially new and different technology takes time. Status reports should be shared with the stakeholders participating in the project. Upon completion of the project, it will be important to collect all

statistical data regarding trends in the use of force; comparisons must be made to data compiled prior to the deployment of the new technology.

In closing this chapter, leaders need to examine all factors and at the same time consider future forecasting. The leader will frequently communicate their progress and vision for the future to the other stakeholders, who are supporting the process. By maintaining these open lines of communication and future forecasting the project can avoid many of the pitfalls associated with change and continue to develop a less lethal weapon beneficial to law enforcement.

To this point many areas have been examined and information solicited for individuals within and outside the law enforcement arena. In Chapter Five a conclusion will be drawn regarding law enforcement's proactive approach to the development of less lethal weapons and how that development will affect future use of force option by peace officers. The following recommendations are based on the future scenarios outlined earlier in this paper and the desired future outcome of having the best less lethal weapon and using the least amount of force to subdue violent individuals.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

This project has examined many possibilities that exist in the future for advancements in less lethal technology. Additionally, it has studied the potential impacts these weapons could have on how peace officers conduct day-to-day business and how they deal with violent individuals. In Chapter One there were many questions posed regarding this topic. This chapter will provide answers to those questions.

The first hypothesis is that less lethal technology will continue to advance at a steady rate, never developing the perfect weapon that is effective on 100% of the people. This would mean that developers would only improve on current weapons. In other words, making current technology just a little better. In law enforcement over the past 15 years there have been such improvements to current technology or weapons. These advancements helped law enforcement to reduce the level of injuries to suspects and civil actions against peace officers. Examples of these improvements are as follows.

Chemical agents used by police have changed for the better. It was just 13 years ago that officers were carrying Mace. This was a CS tear gas in a canister that could be used at closer ranges against violent offenders. This weapon used pain and the psychological effects to subdue violent offenders. The problem was that it did not work on most of the individuals who it was intended to subdue. Individuals on drugs, mentally deranged, and those that

could ignore the pain could continue to fight and attack the police. In the early 1990s, police officers started carrying Oleoresin Capsicum. This is better known as pepper spray. This improved product was still a chemical agent, but much improved from Mace. This new weapon had a physiological impact on more individuals who in the past had been able to ignore those effects.

Electronic weapons have also been improved and are now more powerful than ever before. The "TASER" is now available to almost all law enforcement agencies. The old TASER, like Mace, used pain as a psychological tool to gain compliance. Again, it did not work on individuals who were under the influence of drugs or mentally deranged; these are the individuals who were more likely to become violent. The most widely known ineffective use of a TASER was in the Rodney King arrest. The nation watched as police deployed a weapon that had virtually no effect on a violent man. That incident probably created the new research and the development of the current stronger TASER device. The electrical power of the TASER used against Rodney King was just 2 watts. The current TASER now has 26 watts of power. This was not a gradual change. With this stronger weapon, there are physiological effects that individuals are unable to ignore.

Extended range impact weapons have improved from those used to control crowds to ones that are person-specific. Officers used to throw devices into crowds that would explode and disperse projectiles to move a crowd in a specific direction. Today these impact weapons can be fired from a shotgun. These extended-range impact weapons are person-specific and use pain as the

compliance tool. The officer is relying on that pain and psychological effect to get the upper hand on the subject.

There have not been many new weapons designed in the past twenty years, just improvements in the current ones. The advancements have definitely improved and changed the way officers deal with violent offenders. With these improvements, there have also been changes in the community's expectations regarding how peace officers administer force. It has also made it safer for police officers dealing with violent individuals and has reduced liability for law enforcement agencies.

Should this technology continue to develop in this fashion, agencies will need to examine when they will replace existing weapons. Using Strategy One, organizations will be able to answer those questions posed in the introduction. Those questions are: Is the agency buying the tools that are effective and field-tested? Is the weapon still in the development stages? What is the learning curve? What is the cost to purchase and maintain? Strategy One requires the development of a committee, internal and external, that would look at less lethal technology currently available to the market. It would also examine any potential future weapons being developed. This committee would make recommendations to the chief of police who, in turn, would make a decision on which weapons will be acquired.

The second hypothesis is that researchers will continue to make advancements or improvements to current weapons until the perfect less lethal weapon is developed. This technology breakthrough, when it happens, will

probably come from the military.¹⁰ The military already has weapons that are close to being that perfect weapon. May 2003 issue of *Popular Science* speaks of many of these devices being developed by and for the military. These weapons range from sponge type rounds to lasers that temporarily blind and low frequency acoustics that create intense pain.¹¹ When this weapon is developed, peace officers will be required to use deadly force in only the rarest occasions. S.W.A.T. teams for medium size agencies will no longer be needed. These teams will most likely never be used and therefore the cost to maintain and train these teams may be cost prohibitive. Additional cost savings could be from the elimination of these tactical teams. They could rely on the larger police agencies or the local sheriff's department for those few occasions when the less lethal weapon is not appropriate. The cost savings from the elimination of that tactical team could be utilized on the expensive less lethal weapons.

In the past, the military has developed weapons without any outside assistance or influences. Law enforcement in America must change this practice and get involved in the research and development stages. This would be accomplished using Strategy Two. As stated earlier, a military/law enforcement partnership can assure that the best less lethal weapon is being developed for law enforcement and the military functions of the future.

The outcomes of both of these hypotheses and strategies can mean significant future cost savings to police departments. The savings would come from reduced injuries to subjects and the peace officers who must deal with

¹⁰ Stan Ferer, Vendor, Armour Holdings Inc., 24 March 2003, S.W.A.T. Conference.

¹¹ Eric Adams, Shoot to not Kill, *Popular Science Magazine*, May 2003.

these violent individuals. Additionally, there would be savings in the reduction of civil lawsuits against agencies using these weapons and a reduction in insurance premiums for the cities. If cities do not have to pay large civil action settlements, the cost of insurance to those cities will decrease.

The focus of this project has been on futures research and future forecasting. The Nominal Group Technique process combined the knowledge and expertise of individuals to forecast future trends and events they believed could have an impact on the project. The main issues were narrowed and refined and then discussed individually. Some of the main issues addressed were training aspect and the financial concerns of the city. Concerns were addressed regarding future costs of advanced less lethal weapons and would a perfect weapon, if developed, being affordable to all law enforcement agencies? Another area of concern was the functionality of the weapon. Would the weapon be too complicated to use and require excessive and costly training? Both of these issues are potential future weaknesses, but it was the consensus of the group that cities would either select to, or be forced to, overcome these obstacles. The pressure to overcome these hurdles would be from inside and outside the organization.

How organizations move from the current environment to the ideal future involves the strategic plan. Using those strategic and implementation plans will provide a road map for a smooth transition. Early in this process, the stakeholders must be identified, and these stakeholders must be utilized to implement the change and move the organization to the desired future.

The key to any acceptance of change is leadership. Past relationships and the role of the management group and first-line supervisor cannot be taken too lightly. To be successful, there must be a clear communication of the organization's vision. There must then be unity in that vision and the future mission goals and objectives.

Resistance to change is a normal reaction. Leaders must encourage and support new ideas and demonstrate they are dedicated to making the organization better through change. Lastly, they must demonstrate this willingness to support change by dedicating the appropriate personnel and resources to accomplish the task.

Two important stakeholders who cannot be neglected and who will help with the acceptance of change once implemented are the community and media. There must be an open communication and established partnership with these two groups. Being able to rely, or call, upon influential members of these groups is invaluable to the success of external support. Whenever possible, members of these two groups should be included in the process.

As the leaders of organizations, it is the responsibility to be visionaries and to move that organization toward a future goal. There are two strategies presented in this paper. Strategy One is to be reactive to events when they occur, or Strategy Two, be proactive in anticipating those future trends and events that will affect our organizations. Obviously, the optimum choice is using the future forecasting method. This will keep the organization well ahead of the problems and make the agency a leader in the field of law enforcement.

Agencies must continually examine which less lethal weapons they will provide to their police officers and must not be afraid to be the first to change these tools or procedures. They must also examine their use of force procedures and policies and not hesitate to change or modify them when needed.

By implementing these two strategies, the best less lethal weapon will be developed for law enforcement. It will take the knowledge, creativity, and talents of many individuals within and outside of law enforcement to develop a less lethal weapon that is 100% effective on all individuals. Every step towards that desired outcome will reduce the amount and level of force used by peace officers. Should the perfect less lethal weapon be developed, it would almost eliminate any future use of deadly force. As long as there are firearms available to citizens there will never be a complete elimination for the use of deadly force by law enforcement.

APPENDIX A

Nominal Group Technique Panel

1. Mr. David Birozy Lieutenant, Cypress Police Department
2. Mr. Ed Bish Sergeant, Cypress Police Department
3. Mr. Matt Burton Assistant Finance Director, City of Cypress
4. Ms. Denise Davis Police Service Officer, Cypress Police Department
5. Mr. Stan Ferer Sales, Armor Holdings
6. Ms. Cassandra Frye Support Services Manager
Los Alamitos Police Department
7. Mr. R.K. Miller Lieutenant, Huntington Beach Police Department
8. Mr. Tom Peters Principal, Oxford Academy
9. Mr. Phil Wendell Human Resource Manager, Yamaha Motor Corp.

Assistants to the Facilitation

1. Mrs. Mary Weuve Secretary, Cypress Police Department

APPENDIX B

NGT: Trends Brainstorming List

1. The complexity of the less lethal device
2. Media's reporting of less lethal technology
3. Criminals response to officers with less lethal weapons
4. Communities expectation to use less lethal weapons
5. Cost of less lethal weapons
6. Liability for not having or using less lethal weapons
7. Training regarding use of less lethal weapons
8. Legislation regarding use and training of less lethal weapons
9. Continued progress towards a less lethal weapons that is 100% effective
10. Injuries to people by less lethal weapons
11. Continued name changes non-lethal, less than lethal, currently less lethal
12. Communities continued knowledge of less lethal capabilities
13. Who will develop future less lethal technology (military or private company)
14. Suicides by COP
15. Police Officers awareness of liabilities concerns
16. The number of less lethal weapons available
17. Lack of less lethal weapon available to police departments
18. Increases in POST guidelines
19. Use of less lethal weapons by private companies
20. Terrorism acts in the United States

APPENDIX B – Continued

- 21.** Injuries to Police officers
- 22.** Criminals access to less lethal weapons
- 23.** Criminals use of less lethal weapons to commit crimes
- 24.** Changes in demographics (single parent homes, aging population)
- 25.** Civil unrest/protests/demonstrations
- 26.** Disastrous results using less lethal weapons
- 27.** Department heads and managers knowledge and understanding of less lethal weapons and policy

APPENDIX C

NGT: Events Brainstorming List

1. Rodney King use of force
2. Riot/Civil unrest
3. Military use of less lethal weapon
4. Significant state/city budget cuts
5. Law requiring use of less lethal
6. Case decision prohibiting use of specific less lethal weapon
7. Blue Ribbon Committee dictates less lethal weapon use
8. Fatal shooting of an incoherent person
9. 100% effective less lethal weapon
10. Televised incident of a death by means of a less lethal weapon
11. Police dealing with religious extremists (like Waco)
12. First death by means of less lethal in 1971
13. Lethal shooting by suspect at a state university
14. Shooting by suspects at a high school (Columbine type incident)
15. Terrorists attack
16. Violent protest at political convention
17. World Trade Organization type riot
18. Reduction/suspension of POST funding
19. Suspected suicide bomber in an airport
20. Large gang fight
21. Termination of pursuit in a residential area

APPENDIX C – Continued

- 22.** Elimination of all grants
- 23.** Televised incident of improper use of deadly force
- 24.** Televised incident of a successful less lethal incident

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