

HOW WILL A LAW ENFORCEMENT OFFICER'S RESPONSE TO A LETHAL
FORCE SITUATION BE ENHANCED BY INCORPORATING PHYSIOLOGICAL
EFFECTS OF STRESS INTO FIREARMS TRAINING BY THE YEAR 2005?

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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.

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Chapter 1

Introduction

Law enforcement agencies throughout the United States are responsible for training personnel in a variety of performance areas. Chief executives continually evaluate the personnel training needs while being mindful of a limited budget. State mandates and community needs can also influence the type of training an officer will receive.

Depending on available resources, lethal force training and critical decision-making are often overlooked by Department administrators in an attempt to reduce training costs, even though the repercussions surrounding lethal force can be tremendous. If for no other reason, civil litigation stemming from the use of a firearm by department personnel should be ample motivation for agency executives to examine their current firearms training. As a result of police shootings, litigation attorneys have been quick to exploit the department's training, tactics, and firearm philosophy. Suing police officers and their agencies is a growing industry.

At present there are a number of law firms that derive their primary source of income from lethal force litigation. In 1991, the Los Angeles Sheriff's Department reportedly spent 12.3 million dollars in civil defense alone. After the 1992 riots in Los Angeles, the department reported 2,500 incidents in which citizens were seeking damages, primarily accusing the agency of failure to protect.¹ The potential impact on a department's reputation, financial stability,

and the safety of line officers all demand that law enforcement executives are aware of the circumstances surrounding the use of a firearm.

Adding to the complexity of issues of lethal force is public opinion. Police officers are expected to make split-second decisions whether or not to deploy their weapons when confronted with an armed assailant even though the officer might be distracted by personal problems, religious beliefs, policy considerations, or peer expectations.

In the aftermath of an officer involved shooting (OIS), the officer's tactics, training, equipment, and state of mind are all examined. Police critics often question the officer's preparation and ability to make a sound decision given the circumstances of the incident. The public's expectations of an officer's performance in lethal force situations are extremely high. Public opinion and perceptions can be the catalysts for civil unrest or, at the very least, can polarize community support if a shooting is deemed unnecessary or excessive.

For example, recently police officers have had to resort to the use of lethal force when dealing with armed mentally deranged individuals. As a result of a few well-published police shootings, police handling of armed deranged subjects has become a sensitive issue. Agency executives have turned to technology hoping for a specific tool or device that could assist officers in the safe apprehension of an armed disturbed person. However, a device that will consistently disable an armed adversary is still in the development stage. Tragically, police officers are limited in their tactical considerations, which often results in the use of lethal force to resolve the situation.

An officer involved shooting, under the best of circumstances, is often only tolerated by local activists and other community groups, and is viewed as a necessary evil. When it is necessary for an officer to use lethal force, the community can react with suspicion and disapproval.

Until technology provides an effective less lethal device that can be carried by the individual officer and quickly deployed, department executives will have to rely on the training, tactics, good judgement, and the decision-making ability of their personnel.²

In order to identify the need for advanced firearms training, this project will focus on how lethal force training can be improved by educating personnel on the physiological effects of stress on the human body. By duplicating training scenarios that cause the officer's body to undergo a physiological change, law enforcement personnel will become more conscious of their limitations while performing under the stress of a lethal encounter. The knowledge gained as a result of the high stress training would then increase the officer's tactical performance in the event of a real lethal encounter.

Preparing law enforcement officers for lethal encounters is not an easy task. The instructors must understand how the human body functions when subjected to critical stress and build the training scenarios around the officer's natural response. Being able to shoot well on the training range is one thing; however, being able to do the right thing under the stress of a lethal encounter is difficult at best.³

When a police officer is faced with deploying a firearm in the line of duty the body undergoes several hormonally induced physiological changes caused by the immediate release of adrenaline into the body.⁴ Danger can create fear. The perception of fear triggers the ultimate level of mammalian body alarm reaction known as fight or flight response. The powerful hormone epinephrine, adrenaline is released by the endocrine system. The conscious mind perceives danger and the primal brain reacts by increasing the body's metabolic rate: pulse is elevated, blood pressure increases precipitously, concentration seems enhanced, and breathing is altered. Simultaneously, the body diverts blood flow into the large muscle groups, and into the viscera, because the body knows its internal system will have to produce extreme amounts of energy in order to combat the perceived danger.⁵

As the adrenaline surges continue, body movements become clumsy. Fine and complex motor skills become difficult to master. Trembling begins, usually in the hands, followed by the knees. The scope of vision is impaired, becoming narrow; however, the clarity improves. The officer's strength increases and so does pain tolerance, as the body prepares for the ultimate test.

Physiological reaction to danger cannot be eliminated in a lethal encounter. However, training instructors can provide superior firearms training by exposing the officers to the effects of stress through repeated realistic training scenarios that are capable of duplicating the hormonal changes.⁶

The skills learned in a training environment could then be called upon in a real lethal encounter resulting in improved decisions, tactics, and if necessary, the accurate use of a firearm.

Historical Perspective

For years, law enforcement agencies throughout the United States have attempted to train its personnel for lethal force encounters. There have been several obstacles to this endeavor including complacent attitude displayed by the officer, the training staff, or the organization. Training barriers can also include an inexperienced cadre, the instructor's inability to communicate, and limited training budgets.

Often times the only firearms training an officer received was outdated or ineffective. In the past, sworn personnel relied mostly on luck or past military training to get them through a lethal encounter. If an officer's tactics were questioned, or the shooting was deemed out of policy, the administration would review, judge, and if justified, penalize the involved officer. Command personnel rarely evaluated the firearm training and generally assumed the outcome of a questionable shooting was based on the individual's poor performance. Yet, department's fail to recognize that firearm training and tactics are always changing and must be routinely evaluated.

In order to determine what type of firearms training is needed to improve a police officer's decision-making ability and weapon manipulation under critical stress departments must examine their current training methods.⁷

Most police officers receive their initial lethal force training in the academy. More often than not, the new recruit receives only the minimum training required by the state or other governing agency, and it can be their first exposure to firearms and critical decision-making. The recruit is placed on a firing line with other law enforcement personnel and instructed on the complex skills of sight alignment, trigger pull, and combat stance under the close supervision of the range master. Depending on their firearm experience, the recruit may feel nervous or even fearful of the anticipated discharge of the weapon.

Recruits fire at paper targets, bull's-eye or silhouettes that pose no threat, real or imagined. The marksmanship is practiced from three to 50 yards and does not expose the recruit to the real dynamics of a lethal encounter.⁸ This type of training develops a false sense of security among the recruits as they are led to believe a lethal encounter is a static and controlled environment. The firearms training is often supplemented by role-playing scenarios where, at times, the instructor presents the recruit with unrealistic situations or the recruit never has the opportunity to apply the skills they learned. Academy training often falls short of preparing new recruits adequately for lethal encounters; in part, because the training is unable to duplicate the stress of a real shooting. New recruits are unaware of the effects of stress on their body and therefore are not prepared to respond to the stimulus.

In order to achieve an effective firearms training course, allowing academy instructors the opportunity to evaluate individual performance, the training cadre should develop critical stress scenarios such as role playing with the use of

simulated fire with wax projectiles or paint balls. After graduation from the academy, the firearms training an officer receives may not improve. Budget cuts other mandatory training and dated tactics can all impact the department's ability to provide personnel with advanced firearms training. The lack of regular firearms training can compound the liability assumed by the agency and the individual officer. The courts and the public both demand top performance from police officers involved in lethal encounters.

In an attempt to determine how some law enforcement agencies prepare their personnel for the possibility of a lethal encounter, several departments in Los Angeles County, California were examined. The sample departments selected are similar in size, resources, and enforcement philosophies. The scope of actual lethal encounters experienced by personnel from the sample departments within the past 5 years varied from zero to more than 15 incidents. The examination included interviewing agency personnel who were familiar with their firearms' qualifications, monitoring agency personnel as they attempted to qualify, and personally participating in the agency's qualification course.

Each of the sample agencies examined has an exemplary reputation throughout Los Angeles County. The majority of personnel felt their firearms training was adequate, but could be improved. Regardless of the agency examined, several officers had difficulty achieving a passing qualification score. The reasons contributing to an officer's inability to qualify, or respond to the training in a satisfactory manner, varied; however, there were several common mistakes committed by the participants.

For example, the introduction of artificial stress into the training scenario appeared to impact an officer's ability to achieve a qualifying score. Multiple targets also proved to be problematic, as an officer had to decide which possessed a greater threat.

The range master or firearm instructor from each of the agencies incorporated some level of stress into their department's qualification course, and measured the participant's decision-making skills under those conditions. However, the agencies did not routinely incorporate enough stress to cause the participant's body to undergo a physiological change during the firearms training.

The first agency examined was the Culver City Police Department. The Culver City Police Department is a medium sized agency and employs approximately 135 sworn officers. The Culver City Police Department does not utilize a full-time range master; rather several sworn officers serve as firearm instructors on a collateral assignment. The Culver City Police Department requires its officers to qualify with their service weapons each quarter and their officers participate in firearms training once a month. The qualification consists of live fire drills under controlled conditions. The officers fire on a variety of targets, silhouette and cartoon style, and the range master incorporates a minimum level of stress into the firearm course in an attempt to heighten the officer's awareness and challenge their decision-making ability.

In recent past, several Culver City police officers have attended advanced weapons training offered by private vendors to increase their tactical performance. The Culver City Police Department does not have access to video

simulators within their organization and relies on other law enforcement agencies for interactive video technology.

Firearm instructors at the Culver City Police Department do not routinely incorporate high amounts of stress capable of inducing a physiological change in the human body into their use of lethal force training. If a Culver City Police Officer was aware of the effects stress can have on their performance during a lethal force encounter, the knowledge was generally gained from an outside source.

Culver City Police Officers have been involved in several lethal encounters in recent years. The encounters have been mostly successful. At the time of this writing, the Culver City Police Department had not lost an officer in the line of duty for the past five years as the result of a suspect's actions; however, several Culver City officers have suffered serious gunshot injuries. Like most other law enforcement agencies, the Culver City Police Department has endured civil litigation as the result of lethal force issues.

The University of California, at Los Angeles (UCLA), is located near the western portion of Los Angeles County. The Department employs over 75 full-time police officers and like the Culver City Police Department does not employ a full-time range master. The agency utilizes several sworn officers as firearm instructors based on the Department's needs. UCLA police personnel are required to qualify with their firearms once each quarter. The current qualification course consists of 30 rounds fired from the 3, 5, 15, and 25-yard line under controlled conditions. The minimum qualification score is 210 or 70 percent of

300 possible points. The officers, without the distraction of external stimulus, engage silhouette targets at the direction of the range master. Once a year, training budget permitting, the UCLA officers participate in a practical firearms training day at an outdoor facility.

During the outdoor training cycle, the officers are subjected to moderate levels of physical stress prior to engaging the targets as the instructors attempt to evaluate the officer's decision-making skills. The officers generally feel that this training method is marginally effective and only really measures whether or not the participant is in good physical condition.

The UCLA Police Department does not currently have access to advanced firearm simulators at their facility and rely on the Santa Monica Police Department for video firearm's technology. The UCLA Police Department has not had an officer involved shooting in the recent past and could not provide any observations as to an officer's survival preparation. Additionally, no civil judgements, awards, or fines have been levied against the agency as it relates to the use of a firearm. Several UCLA police firearm instructors stated they were aware of the stress levels impacting an officer during critical shooting incidents; however, their line personnel did not receive any formal training on the issue.

In an attempt to gain further insight into the diverse firearms training within Los Angeles County, the Inglewood Police Department was examined. The Inglewood Police Department consists of over 198 sworn full-time police officers. Their officers address a variety of difficult and often, dangerous situations. The Inglewood Police Department enjoys a professional reputation among other law

enforcement agencies and approaches firearms training and tactics in a very disciplined manner.

The agency does not employ a full time range master; however, this minute fact does not seem to impact the line officer's critical performance in lethal force situations. This is due, in part, to the progressive training approach, experience, and professionalism of the training staff. The Department's executives display a supportive attitude concerning firearms training and critical decision-making as they believe an officer's performance is crucial to street survival and plays a significant role in the reduction of civil liability.

Similar to other law enforcement agencies, the Inglewood Police Department has a standard qualification course that each officer must pass. This course is shot once a quarter. However, what begins to set the Inglewood Police Department apart from other agencies is their use of force on force firearms training. The Inglewood Police Department routinely subjects its officers to a variety of training environments. Video technology, role playing, and the use of wax bullets are all incorporated into the Department's firearms training.

The variety of training coupled with the positive support system allows the officers to experience extreme levels of stress in their training, which comes close to duplicating a real lethal encounter. The participant's performance is evaluated and immediate feedback provided. If the officer sustains a simulated injury during the training scenario, the physical awareness is associated with the event and experience is gained. The officer is provided alternative tactics for completing the training scenario and allowed to repeat the module.

The method of immediate reinforcement allows the officer to gain insight and operational experience while engaged in training. The interactive training is reinforced through the use of advance firearm simulators, like the Fire Arms Training System (FATS). Inglewood Police personnel are given critical decision-making scenarios based on past shootings. Each scenario is different and does not always require the officer to use lethal force. While the officer is participating in the simulation, his/her actions, tactics, and decision-making skills are evaluated. Again, immediate feedback is provided for the officer and alternatives are discussed. The end result, of what appears to be an effective training model, is a police officer that is better prepared to make a sound decision under critical stress levels.

The last agency examined was the Santa Monica Police Department. The Santa Monica Police Department employs over 200 full-time officers and responds to a variety of calls for service. The Department employs a civilian range master who has past law enforcement and military experience. The range master's responsibilities include the development of training scenarios, which include firearm proficiency, tactics, evaluating the officer's decision-making skills, and the documentation of the training received.

Santa Monica Police personnel are required to qualify each quarter. The current qualification course utilizes silhouette targets and they are engaged from a variety of distances, requiring the officer to draw, aim, and fire the weapon. The minimum qualification score is 72 percent and the range master incorporates simulated stress in the form of time limitations and low light conditions. Similar to

at least two other sample agencies, the Santa Monica Police Department requires mandatory firearms training each month separate from the qualification course.

During the training segment, the range master attempts to duplicate the effects of stress an officer would experience in a real lethal encounter. The officer's decision-making skills, tactics, and weapons manipulation are evaluated. The range master offers immediate feedback to the participant, positive or negative, and alternative tactics are discussed. The range master attempts to explain to the officers why they reacted in a particular fashion based on their perception of the threat.

Most firearms training is conducted with live ammunition either at the department's indoor range or at an outside range, which is rented from a private vendor. The range master attempts to duplicate the effects of stress an officer would experience in a real lethal encounter by incorporating a variety of stimuli into the firearm course. The live-fire scenarios are also supported with the use of FATS. Additionally, the officers are given a written test on their knowledge of Department policy governing the use of the firearms.

In recent years, several Santa Monica Police Officers have been involved in a number of lethal encounters. Most were successful; however, the agency continues to evaluate the tactics and decision-making skills of the involved officers. At the time of this project, the Santa Monica Police Department had not experienced the loss of a police officer in the line of duty as it relates to a lethal encounter. The range master is supported by the department's executives and

continues to play a key role in the development of policy concerning the use of firearms by Santa Monica Police personnel which is imperative to the continued development of firearms training.

Based on the examination of the sample agencies, it appears that law enforcement agencies, in general, are attempting to prepare their personnel for the possibility of a lethal encounter. However, few of the sample agencies routinely incorporated enough stress to create a physiological change in the participant's body.

The modern law enforcement officer must realize that some day, in the performance of his/her duties, they may be required to use lethal force against another individual. During their careers, the vast majority of law enforcement officers will never be involved in a deadly force situation; however, those who face a suspect's life-threatening assault must defend themselves or perish.

Research has shown that most people in our society, including police officers, are reluctant to kill another human being, but with the proper training they can overcome this natural resistance.⁸ The training should be stressful enough to induce physiological changes in the participant, yet basic enough that the officer experiences the sensation of success when the training segment has concluded. With the repeat exposure to firearms training and critical decision making under stressful conditions, the officer will become more aware of the effects of stress brought on by the body's physiological change and will be better prepared to deal with the response. In effect, the officer will be able to call upon the training experience in the event of a real lethal situation.

In an increasingly complex society governed by civil litigation, criminal culpability, and public persecution, police executives must be willing to explore alternate methods of firearms training, such as routinely incorporating critical stress into their firearms course capable of inducing a physiological change in the participant's body. Agency executives willing to provide the most advanced firearms training currently available for their police personnel must consider incorporating sufficient amounts of stress into the instruction thereby creating a physiological change in the participant's body. Only through high stress firearms training will officers improve their performance in the event of a real lethal encounter.

Chapter 2

Forecasting of Trends and Events

In order to determine if a law enforcement officer's response to a lethal force situation could be enhanced by incorporating physiological effects of stress into firearms training, a Nominal Group Technique (NGT) panel was assembled on December 16, 1999. Panel members were asked to identify potential events and trends as they relate to the issue of the project. The panel consisted of nine members including a Chief of Police, two police administrators, two police officers, and four civilians. (Appendix A). The experience of the panel members was diverse and varied in years of service and knowledge of police training, tactics, and lethal force situations.

As a group, the panel members identified approximately 40 trends and 30 events. A trend refers to the past, present, and future and can either be qualitative or quantitative relative to the issue of lethal force training. An event refers to a specific incident which, if occurs, impacts the issue of lethal force training, positive or negative.

The panel identified the necessity for executive's commitment and indicated that if a high stress firearm-training program was to be successful, management would be required to actively participated in the development process from the beginning.

Each trend was reviewed and discussed for clarity and direction. Following a review of the trend list, the events were discussed, clarified and several of them consolidated. Upon conclusion of the clarification process the

panel was asked to rank each trend and event based upon its impact on lethal force training.

The panel identified several events that could take place that would have positive and negative effects on lethal force training. For example, the panel felt that if the courts mandated that department's spend more money on less lethal technology than lethal force training it would have a negative impact on law enforcement.

Trends

From this ranking process eight trends were identified as the most valuable in the context of having a determining long-range forecast of their movement. The panel was asked to review each trend, forecasting their levels using a ratio establishing today with a value of 100. The forecasting required trend estimates of five years ago and nominal (will be) future estimates for five and ten years from now. The following chart describes the results of the panel's forecast.

Trend Summary – Median

	-5 years	Today	+5 years	+10 years	Concern (1-10)
Trend 1	85	100	130	120	10
Trend 2	80	100	120	150	8
Trend 3	110	100	90	100	9
Trend 4	70	100	125	150	8
Trend 5	80	100	120	150	8
Trend 6	80	100	110	125	8
Trend 7	80	100	120	140	9
Trend 8	80	100	130	140	9

Trend 1, Civil litigation.

The median forecast indicates a significant increase in the number of civil actions against police agencies from five years ago and continuing to increase quickly over the next ten years. Civil litigation will likely change the way law enforcement develop and implement lethal force training.

Trend 2, Level of media coverage at critical incidents.

The median forecast indicates a steady increase in the use of media technology and increased coverage over the next ten years. This upward trend will cause increased public scrutiny as it relates to lethal force encounters.

Trend 3, Experience level of training personnel.

The median forecast of this trend indicates a gradual increase in the number of less experienced officers in training positions within the next five years based on the projected retirements. This increase will broaden the gap between those officers who have survived lethal encounters and those who lack the lethal training or field experience.

Trend 4, Utilization of less lethal technology.

The median forecast of this trend indicates a gradual decrease in new less-lethal technology and its ability to assist officers with lethal encounters over the next five years. However, the panel indicated that future technology might increase the use of less-lethal devices to address armed individuals.

Trend 5, Multi dimensional aspects of policing.

The median forecast of this trend indicates a significant increase. The evaluation indicates that the duties of a police officer have increased over the

past five years and will continue to grow in scope and responsibility. Community expectations relating to the use of lethal force continue to focus on the officer's performance at the time of a lethal encounter. The panel members stated that the complexity of policing has increased over the last decade and clearly identified that it as a future trend.

Trend 6, Linkage between physiological effects of stress in critical incidents.

The median forecast of this trend indicates a sharp increase from five years ago to today and increasing over the next 10 years. The panel indicated that there was a significant link between an officer's tactical performance during a lethal encounter and the firearms training received in the months preceding the encounter.

Trend 7, Fear experienced by law enforcement officers.

The median forecast of this trend indicates a sharp increase over the past five years and all indications show a continued growth relating to the fear of a lethal encounter. The potential of criminal, civil, and administrative action added to the officer's perception that a lethal encounter would bring tremendous review. As the trend increases the panel felt that police officers may sense a lack of sufficient lethal force training which would impact their ability to make a critical decision in a lethal force situation. In turn, the officer's paralysis could result in injury to an innocent bystander or the involved officer.

Trend 8, Frequency of lethal encounters for police officers.

The median forecast of this trend indicates a gradual but significant increase in the number of future lethal encounters experienced by police officers.

The evaluation indicates that long-term prison terms will encourage armed individuals to confront police officers rather than face the inevitable. The panel indicated that the need for improved lethal force training was significant if department's hoped to prepare its personnel for these encounters.

Events

The following eight events emerged as having the highest probability of occurring and the most significant impact on the identified issue. The panel was asked to forecast each event on a percent probability scale. It was explained that the value of zero indicated that the event was not expected occur and a value of 100 percent indicated that the event probably would occur. Each panelist was asked to provide a forecast as to when the probability of the event occurring would first exceed zero and what the subsequent probabilities would be at five and ten years. The panel was also asked to rate the impact, positive or negative, on the issues should the event occur. The impact, either positive or negative was scored on a scale of one to ten. The following chart describes the results of the panel's forecast.

Event Summary – Median

	years >5	+5 years	+10 years	Impact (+ / -)	Impact (1-5)
Event 1	8	0	40	-	-1
Event 2	1	100	100	+	4
Event 3	2	90	100	-	-1
Event 4	2	75	100	-	-2
Event 5	1	100	100	-	-5
Event 6	5	20	60	+	+5
Event 7	2	15	50	+	2
Event 8	5	40	60	+	3

Events

Event 1, Courts mandate the use of less lethal technology in lethal encounters.

The probability of an event such as a court ruling mandating the use of less lethal technology in lethal encounters will significantly impact the implementation of a high-stress firearm program. The probability of this event occurring begins eight years out and has a zero percent probability in five years, increasing to 40 percent in ten years. The panel agreed that this event would have a negative impact on the implementation of a high-stress firearm program.

Event 2, Active shooting incident.

The probability of an event such as an active shooting incident will significantly impact the implementation of a high-stress firearm program. The probability of this happening begins one year out and has a 100 percent probability in five years, remaining at 100 percent in ten years. The panel members indicated that this event would be a positive force in the implementation of a high-stress firearm program.

Event 3, Court holds law enforcement agencies liable for not using less lethal technology in a lethal encounter.

The probability of an event such as a court ruling holding law enforcement liable for not using less lethal technology in a lethal encounter will impact the possible implementation a high-stress firearm program. The probability of this event occurring begins two years out and has a 90 percent probability in five years, increasing to 100 percent in ten years. The panel agreed that this event

would have a negative impact on the implementation of a high-stress firearm program.

Event 4, Police employee kills co-worker at the work place.

The probability of an event such as a police employee killing a co-work while at the workplace may have an impact on the implementation of a high-stress firearm program. The panel indicated that the probability of this happening begins two years out and has a 75 percent probability in five years, increasing to 100 percent in ten years. The panel members agreed that this event would have a negative impact on the implementation of a high-stress firearm program.

Event 5, Courts mandates that departments spend more money on less lethal technology than on lethal force training.

The probability of an event such as the courts mandating that law enforcement agencies spend more money on less lethal technology than on lethal force training will have a significant impact on the implementation of a high-stress firearm program. The probability of this happening begins 1 year out and has a 100 percent probability at both five and ten years. The panel indicated that this event would have a negative impact on the implementation of a high-stress firearm program.

Event 6, Police officer fails to take action when faced with a lethal encounter as a result of inadequate training.

The probability of an event such as a police officer failing to take action when faced with a lethal encounter as a result of inadequate training will have a significant impact on the implementation of a high-stress firearm program. The

probability of this happening begins five years out and has a 20 percent probability in five years, increasing to 60 percent in ten years. The panel indicated that this event would have a positive impact on the implementation of a high-stress firearm program

Event 7, Perceived fear causes police officers to use unreasonable lethal force.

The probability of an event such as a police officer using unreasonable lethal force during a armed encounter will significantly impact the possible implementation of a high-stress firearm program. The probability of this happening begins two years out and has a 15 percent probability in five years, increasing to 50 percent in ten years. The panel agreed that his event would have a positive impact on the implementation of a high-stress firearm program.

Event 8, Development of creditable suspect behavior profiles.

The probability of an event such as the development of a creditable suspect behavior profile would have a limited impact on the possible implementation of a high-stress firearm program. The probability of this happening begins five years out and has a 40 percent probability in five years, increasing to 60 percent in ten years. If the event occurred, the panel indicated it would have a positive impact on the implementation of a high-stress firearm program.

Cross Impact Analysis

The purpose of the cross impact analysis was to identify those trends and events in which interrelationships existed and to assess their impact on one another. The purpose of completing the cross impact analysis was to develop a

better understanding of how the future development of a high-stress firearm program might improve an officers tactical performance during a lethal encounter. Four members of the nominal group panel met as a subgroup to analyze the cross impact of the identified trends and forecasted events upon each other.

By assuming that an event actually occurs, an estimate can be made as to how it impacts other identified events and trends. This is then analyzed in relation to the issue to foresee reactions. An estimate can also be made concerning how each individual event and trend was impacted by the occurrence. There were four events that had the greatest impact on the issue of implementing a high-stress firearm program design to improve an officer's tactical performance during a lethal encounter.

A police department responding to an active shooting incident (urban terrorists). From the onset the event would have a negative impact relative to the training trend of the concerned agency. The department's lethal force policies, training records and method of instruction would all be called into question. However, the internal and external reflection would bring about a positive outcome as it relates to the creation of a high-stress firearm program. Additionally, the event would cause department's to conduct further research into tactical performance by its officers during a lethal encounter.

The courts hold law enforcement agencies liable for not using less lethal technology in a lethal encounter. From the start this event would have a negative impact on a department's ability to develop a high-stress firearm

program. Department's would be forced to commit greater resources to less lethal training and reduce the amount of lethal force training. Additionally, officers could be mandated to use only less lethal devices when confronted by an armed individual. The panel's analysis indicated that an event of this magnitude would remove management's flexibility to design a new firearm program.

A police employee kills a co-worker at the work place. This event would have a significant negative impact on a department's ability to implement a high-stress training program. The panel indicated that the media coverage, political review, employee safety issues, and the sensitivity of the incident would all prevent development of the program.

A police officer fails to take action when faced with a lethal encounter as a result of inadequate training. The panel indicated that this event, although potentially tragic, would have a positive impact on a department's ability to implement a high-stress training program. Panel members stated that this event, above all others, would highlight clear evidence that current training methods were not satisfactory and that research should be conducted into improving the officer's performance in a lethal situation.

After completing the cross impact analysis, several futuristic scenarios were developed in an attempt to express the data collected during the NGT process. The scenarios were based the trends, events and the cross impact analysis. The scenarios suggest that by implementing a high-stress firearm program, capable of inducing physiological changes in the participant's body, an officer's tactical performance during a lethal encounter would be enhanced.

Scenario One Optimistic Future

Sergeant Anthony Michael looked at his watch; it was 6:30 A.M. He had just completed his morning physical fitness routine and made a mental note of the advanced firearms training he was scheduled to attend at 8:00 A.M.

Sergeant Michael was always on time. He credits his parents and past military service for instilling a strong work ethic. Thinking of the good old days brought a smile to Michael's face. He allowed himself to drift deeper into his memory. He remembered the demands placed on him during Basic Underwater and Demolition School (BUD'S), and his final appointment to a S.E.A.L. Team.

Sergeant Michael's thoughts shifted to his first combat experience. He remembered how scared he was. His thoughts were confused, his heart pounded in his chest, vision narrowed, and his limbs seemed to resist his commands. Yet, Michael felt a rush like no other he had ever experienced. He remembered his drill sergeant barking out the words, "...Mortal combat is the ultimate test of the human body..." Just as Sergeant Michael prepared to yell back "Yes Sir!" he was jolted back to reality by the sound of someone using the leg press machine next to him. Sergeant Michael looked around the gym wondering if anyone had noticed he was day dreaming.

Sergeant Michael focused his thoughts back to the firearms training now only an hour away. He was enjoying his second tour on the department's Special Weapons Team (S.W.T) although he was studying for the upcoming lieutenant's exam. The younger, less experienced officers looked to him for

leadership and knowledge, and generally held him in high esteem. He was one of the older officers in the unit and currently the Team Leader.

Sergeant Michael had participated in the department's firearms training several times prior to his appointment to the tactical unit. In fact, at one point in his career he was the Department's range master and created many of the training scenarios still used by the instructors. However, today Sergeant Michael was just another student.

Sergeant Michael heard several rumors floating around the department about the new firearms training. As he understood it, the course had two phases. The first phase followed the routine format of live-fire drills. Thirty rounds fired from the three, five, and 15-yard line, timed of course, to create that little extra stress in the shooter's mind. However, phase two was completely different and very realistic, or so he had been told by a few other officers. Sergeant Michael reserved the right to be the final judge.

By the time he had completed his workout, was dressed and reported to the indoor range, the range master, Jason Mann, was waiting impatiently. Time was critical, as several officers had yet to qualify. Each minute was valuable and attention to detail imperative.

Sergeant Michael was standing just outside the door leading to the range. Sergeant Michael greeted Mr. Mann, which appeared to annoy him. Mr. Mann, his voice slightly elevated, immediately started to explain the course of fire to Sergeant Michael; "...Tony, the range is set up like a warehouse. You are a first responder reporting to a radio call of a burglary in progress...." The words

seemed very familiar to Sergeant Michael as he had heard them several times before. He thought to himself, "...so far, no big deal, routine stuff..."

Sergeant Michael was feeling very confident about his anticipated performance, when he heard the range master say "...you might encounter an armed suspect during the search. The suspect will have the ability to fire non-lethal projectiles at you if the opportunity presents itself..." Wait a minute Sergeant Michael thought, "an armed opponent, firing back at me... what's going on here?" Sergeant Michael forced himself to concentrate on Mr. Mann's instructions. He noticed that it was becoming increasingly difficult to concentrate as his body responded to the stress of the scenario. His respiration quickened, his limbs felt weak and heavy, and complex motor movements were difficult to master. "What's happening to me?" Sergeant Michael thought.

Even as Sergeant Michael adjusted the straps to his protective helmet and face shield, he did not totally comprehend the physiological changes occurring in his body. Range Master Mann handed Sergeant Michael a special training pistol and asked him if he had any questions? His mind was screaming, "...wait a minute! Wasn't this course suppose to follow the normal firearm's routine? You know, ready, aim, fire under controlled conditions? What happened to the friendly qualification course?" Hell yes, Sergeant Michael had questions, but he could not ask them quick enough.

Mr. Mann opened the range door and Sergeant Michael stepped into the darkened environment. Even though Sergeant Michael knew he was inside the department's range facility; he could not stop from thinking that it had been

cleverly converted into a warehouse. He immediately noticed a small light directly behind him. His mind screamed “back light, move for cover, quick.” Sergeant Michael’s limbs were heavy, almost lethargic, as he commanded his body to move to a nearby desk. He crouched behind it. Sergeant Michael was scared. The scenario seemed so real. Why hadn’t he mentally prepared himself for this possibility? He was angry for not taking the new training seriously. Sergeant Michael had a million thoughts screaming through his mind all at the same time. He asked himself “...have I become complacent in my old age?” He didn’t think so. After all, he was the grand dad of the Department’s Special Weapons Team, one of the more experienced operators still active. As Sergeant Michael contemplated his next move, a projectile fired by the suspect smashed into the telephone located on the desk that provided his cover.

Sergeant Michael’s mind was racing. Beads of perspiration were building on his brow. He was breathing so quickly now it was approaching hyperventilation. The sweat poured into his eyes causing a stinging sensation and impairing his vision. Sergeant Michael tried blinking his eye lids several times hoping it would stop the stinging pains; however, he found little relief. He dare not wipe his eyes for fear that he might miss the suspect’s movement. Sergeant Michael attempted to focus on his past tactical training. He gradually became aware of the energy flowing through his body and recalled his performance in prior combat situations. He mentally called upon his past combat experience to help him through the scenario. As though Sergeant Michael had walked through a fog bank into a clearing, his tactical performance began to

improve. A split second later, Sergeant Michael began to slow his respiration, focus his vision, and force himself to tactically evaluate the situation.

As Sergeant Michael focused his efforts on his tactics, his performance improved. He moved from the desk to another position of cover. Sergeant Michael thought to himself "...use your cover, evaluate the situation, focus..." Sergeant Michael continued to move through the scenario, all the time his tactics, use of resources, and decision-making skills were being scored and documented by the range master. Sergeant Michael continued through the makeshift warehouse and after approximately 20 minutes the scenario was terminated.

Mr. Mann turned on the overhead range lights, which immediately destroyed Sergeant Michael's night vision. Reluctantly, Sergeant Michael looked around the range. He noticed the desk he had used for cover and ventured to guess he had only moved 20 feet after receiving adversarial fire. The suspect was nowhere in sight.

Range Master Mann stood looming over Sergeant Michael scratching out his final notes. He critiqued Sergeant Michael's tactical performance and explained how stress creates a physiological change in the human body, which impacts decision-making, motor movement, and judgement. Range Master Mann then commended Sergeant Michael for his use of cover during the scenario considering he had made a few errors, which was not unusual. Range Master Mann continued explaining his observations to Sergeant Michael, which included alternate methods of searching a building for an armed suspect.

As the briefing concluded, Sergeant Michael recalled the feelings he had experienced during the training scenario. He had a better understanding of how stress impacted the human body and felt he was better prepared to respond to a future high stress event. After the briefing, Sergeant Michael participated in a second similar scenario. Range Master Mann immediately noticed a marked improvement in Sergeant Michael's tactical performance.

At the conclusion of the training, Sergeant Michael felt a sense of accomplishment. The new training format was not just another qualification course, his sweat-covered shirt would attest to that. Sergeant Michael felt his agency was attempting to provide advanced firearms training hoping to improve his decision-making and tactical performance in the event of a real lethal encounter. Sergeant Michael thought, "the training is logical. The better my decision-making in a critical environment, the higher chance for a successful conclusion and therefore, the less liability created for my agency..." He was pleased that the Chief had researched and approved the new firearms training.

Scenario Two Pessimistic Future

Detective Baker had spent the past four hours in his undercover vehicle. He was tired, hungry, and irritated that the suspect was meeting the undercover operator in his favorite restaurant. In fact, the suspect was acting as though he did not have a care in the world. Tonight Detective Baker's assignment was point man for the Special Enforcement Detail (SED). After the suspect concluded his meeting with the undercover operator, if everything went as planned, he would

drive to a hidden location, retrieve several kilos of cocaine, and then exchange the dope for \$300,000 dollars in cash.

Detective Baker had only worked this type of investigation twice before, but never as the point man. That responsibility was usually given to one of the senior investigators on the team. But tonight was different. Detective Baker had proven to be an aggressive detective and for his months of hard work he was offered the coveted point man position. He felt fortunate to be given a chance since he was the youngest detective on the narcotics crew.

Detective Baker thought to himself that times had not always been so rosy. He recalled some of the more significant surveillance's he had participated and a few close calls where the unit almost lost the dope or the buy money. But generally the investigations went off without a hitch. Detective Baker recalled the time he had fallen asleep during a major dope deal. Hell, he thought, "It's happened to the best of the best, why should I be concerned with the past?" He knew in his heart how dangerous his job really was and there was a high likelihood of having to use lethal force in a given situation. He quickly refocused on the job at hand.

Detective Baker scanned the large panel window located directly in front of the suspect's table. As he continued to monitor the suspect, the informant appeared from nowhere. Detective Baker thought to himself that the undercover operator was appropriately dressed for the occasion and appeared to be relaxed.

Detective Baker reached into his kit bag and removed a small police scanner. He turned it on and switched to the undercover radio frequency. The

audio transmission that followed was loud and clear. The words emitting from the compact plastic box were so clear that anyone would have thought that Detective Baker was seated right next to the suspect. Detective Baker immediately recognized the street jargon; it was dope related, go figure! Dopers just don't change. They always ask, "Did you bring the money," and the undercover operator always responds, "Did you bring the dope?"

However, this time Detective Baker thought the suspect seemed a little too curious about the money. Detective Baker focused on each word spoken by the suspect. He noticed a pattern. Almost every other word was about the money. What was the suspect up to? It appeared (and sounded) like the undercover operator was getting angry with the suspect's continued prodding about the money. The next sentence uttered by the undercover operator caught Detective Baker completely off guard "...Yea, I have the money with me, it's in my car."

Detective Baker sat up in his seat stunned. Wait a minute! That's not the game plan. There was no talk of the undercover operator bringing any money to the meet location. In fact, Detective Baker didn't think the Department had \$300,000 in cash at its disposal. Where did the operator get the money? Whose money was it? All of a sudden Detective Baker's mind was filled with a thousand questions.

As Detective Baker raised his portable radio to speak with his supervisor, he saw the suspect and the undercover operator stand up from their table and walk towards the door. He automatically began broadcasting the suspect's movements and direction of travel. There was no time to explain the

conversation he had monitored between the suspect and the undercover operator.

As Detective Baker described the suspect's every move, he became aware of his own anxiety. He continued to give the blow by blow description of the suspect's movement all the time thinking the situation seemed all wrong. Detective Baker was unsure why he felt so suspicious of the suspect's actions and attempted to rationalize his thoughts. He was painfully aware of the increasing stress in his body. Was this a rip off? Or was the suspect merely playing mind games with the undercover agent? Baker continued to watch and provide updates to the other surveillance officers.

The suspect and the undercover operator stopped near the trunk of the suspect's vehicle. The suspect opened the trunk and reached inside, removing a small object. Detective Baker's heart was pounding as he continued to broadcast his observations. He was faintly aware that he was now yelling into his portable radio as if the level of his voice would improve his communication. The undercover operator seemed unconcerned with the suspect's actions. In fact, Detective Baker could hear over the wire that the undercover operator was still talking with the suspect about the dope.

Detective Baker grabbed his binoculars hoping to get a closer look at the situation. He focused the binoculars on the suspect's right hand and felt an instant wave of panic. The suspect was pointing a small pistol at the undercover operator. Instantaneously, Baker heard the demands of the suspect emitting from the police scanner "Give me the money, now!" Baker's mind was racing,

“rip-off!” “Where was his vest”, he thought? “Do I have time to put it on?” He cursed himself, thinking, “I should have been wearing it all along.”

Detective Baker wondered what he should do? He felt sick to his stomach. Months of planning were going to hell in a hand basket and there was nothing he could do about it. Who would have thought the suspect would rip off the police? Was he crazy or what?

The sequence of events seemed to slow to a crawl. Detective Baker was not cognizant of the fact that he had just grabbed his 9mm, pistol opened the driver’s door of his undercover vehicle and was now running towards the suspect. He was hoping to maintain the element of surprise as he approached the suspect, but it was not to be. At the last possible moment the suspect looked up and saw Detective Baker running towards him. Their eyes locked for a split-second and Detective Baker knew the suspect was going to stand and fight. He heard himself yell, “...freeze police! Don’t move!”

Detective Baker had role played this scenario a thousand times in his mind before tonight, but he was clearly not prepared for what was happening. Detective Baker did not completely understand why his movements weren’t as smooth as he had practiced, or why his voice was cracked when he commanded the suspect to surrender. Was he sick or what?

Detective Baker watched as the suspect turned completely towards him. At the same moment, the undercover operator dropped to his knees placing his hands over his ears anticipating the deafening sound of gunfire. He was now ten feet closer to the suspect and could clearly see the make and model of the

suspect's weapon, a 4" blue steel revolver. Detective Baker's legs felt heavy. His heart was pounding and his lungs were screaming for more oxygen. The suspect had now assumed a combat stance of sorts; head, shoulders, hips, and feet square to the target as the suspect raised his weapon to eye level.

Detective Baker was shocked at the suspect's tactics and thought to himself the suspect must have past combat experience. Detective Baker saw a bright flash emitting from the front end of the suspect's weapon. It appeared as though the flame emitting from the suspect's weapon must have been two feet long and red-hot. The image froze in time. The bright flame illuminated the suspect's face and his nearby vehicle as he heard the projectile strike a nearby block wall. Detective Baker continued to run towards the suspect. He could hear his feet striking the pavement, and promised himself that if he survived this encounter he would remember to wear running shoes on his next surveillance.

Detective Baker raised his 9mm pistol pointing it towards the suspect. He heard himself yell one final time, "Drop the gun..." The suspect responded by firing another round at him. As Detective Baker's weapon reached eye level, he found it difficult to focus on the sites. His hands were shaking and his vision narrowed to the point where all Detective Baker could see was the suspect's weapon.

Detective Baker took what he thought was careful aim and squeezed the trigger of his semi-automatic pistol. He was somewhat disappointed in the recoil of his weapon and for a moment thought it had malfunctioned. Detective Baker watched the suspect's body as his first round found its mark. The suspect's

facial expressions were contorted with pain and disbelief as he began falling towards the pavement. Before he knew it, he cranked off another round, and then a third. A moment later, Detective Baker reached the suspect. He immediately saw the suspect had been wounded by gunfire. Detective Baker radioed for medical assistance and began to probe the suspect for additional injuries. He was vaguely aware of the people standing just a few feet away from him, as his attention was slowly drawn to the group as he continued searching the suspect.

Detective Baker heard cries for help emitting from the group of by-standers. He could see several other officers standing nearby attempting to render assistance. Everyone seemed focused on the group of by-standers rather than the suspect. Detective Baker could see fear and panic in the eyes of his brother officers as he walked towards the group of by-standers. As he reached the group, his worst fears were realized. One of his rounds had missed the intended target and had struck an innocent person. The victim was an older man; Detective Baker guessed his age at 60. A female, who was kneeling next to the victim, looked up at Detective Baker and screamed, "Why did you shoot my husband?" He thought to himself, "I didn't mean to shoot your husband, I was aiming for the suspect."

The paramedics arrived at the location and began to provide medical treatment for the victim and the injured suspect. Detective Baker felt sick, dejected, and concerned about his actions. Would he be sued? Worse, jailed or fired from his job. A million thoughts raced through his mind. An investigator

from the District Attorney's Office later questioned Detective Baker even though he had already provided a statement to the criminal investigators from his own department. Why would the District Attorney want to talk with him?

After the investigation, Detective Baker was placed on administrative leave. He was told it was policy to be given a few days off after an officer involved shooting. Within weeks of the shooting, separate attorneys representing the victim and the suspect filed claims against Detective Baker and his department alleging that he was negligent in his tactics and decision-making, and that his department had not adequately prepared him to deal with lethal force situations.

The ensuing judicial process brought about a review of Detective Baker's training files, academy records, and other related documentation. It was discovered that other than limited firearms training in the academy, Baker's department had not provided on-going continuous firearms training. There had been quarterly firearm qualifications of course, and each officer's score was recorded and accounted. However, Baker's Department had not provided any advanced firearms training. Baker's Chief of Police was questioned about the lack of advanced training. The chief explained that with recent budget cuts, the police department had reduced its training requirements in an attempt to save money. The chief knew firearm's training was important and had planned to restore it when the Department's budget was increased. Additionally, the chief stated that current training funds were spent on other mandated training.

As the lawsuits progressed through the court system, Baker's department spent several thousands of dollars in his legal defense. The City Attorney's Office representing the police department and Detective Baker ultimately agreed to an out of court settlement with the victim. Baker retired from the police force on a medical disability largely due to stress. The Chief of Police resigned from his position and the department's firearms program was modified to reflect the orders of the court.

Scenario Three Surprise Free Future

Sergeant Pres opened the door to the training office. He had just returned from a well-deserved vacation and was looking forward to seeing some of his police buddies. However, when Sergeant Pres saw the mound of paperwork on his desk, any feelings of goodwill went right out the window. Sergeant Pres thought "... every sheet of paper generated by the department in the last two weeks must have landed on my desk..." Of course he knew that was not the case.

Sergeant Pres sat at his desk and began to sift through the foot tall pile of paper. Old training logs, school request forms, and weekly bulletins took up the first 50 pages. Then Sergeant Pres came across a newspaper article that caught his attention. The article was titled "Unarmed Suspect – Shot by Police." The article started on the front page and appeared to continue on for at least three additional pages. The author indicated that two police officers from a local agency responded to a radio call of a mentally disturbed subject who was yelling

at the moon. When the officers attempted to arrest the subject, he resisted, and was ultimately shot by the officers.

The article focused on a police department's firearms training alleging that it was inadequate and did not prepare its officers for critical decision-making. Sergeant Pres knew several police officers who worked at the agency in question. They all seemed caring and professional, but Sergeant Pres was well aware that police officers performed differently when under stress.

In fact, Sergeant Pres recalled that he was transferred to the Training Division specifically to redesign his Department's firearms training program. Six months ago, his chief had attended a Use of Force Training Seminar in northern California. As part of the seminar, a panel of experts discussed the physiological effects of stress on police officers during a critical incident and the need for advanced firearms training that would include duplicating real life scenarios. Sergeant Pres's chief was so impressed with the training concept that upon his return to the department, he reassigned Sergeant Pres to the Training Office and ordered a full examination of their current firearms training.

Sergeant Pres had a great deal of personal experience with critical stress environments. The veteran of several police shootings, he knew how difficult it was to perform at peak levels and had long felt that his department's firearms' training was insufficient. As Sergeant Pres began his research, he recognized that his department's current firearms training was nothing more than basic practice. The qualification course consisted of the range master directing each officer to fire from the 25-yard line into a bull's eye target. The round strikes

would then be scored and if the officer reached a grand total higher than 210, he passed. No stress, no tactics, no problem. The officer would then run a cleaning patch through his weapon and with a little luck, could be back on his way in less than 30 minutes (including the 10 minutes used to gossip with the range master).

However, since Sergeant Pres was given full latitude to modify the firearm's course, things would be different. Sergeant Pres attended several advanced training schools, all of which were focused on the physiological effects of stress on police officers during a lethal encounter. Next, he trained several other members of the department who would act as the primary instructors of the new firearm training concept.

Once the new training course was designed, Sergeant Pres scheduled several classroom training days for all sworn personnel. The training time was used to explain the concept of the physiological effects of stress on a police officer during a lethal encounter and how stress impacts their tactical performance. Most of the line officers accepted the new concept and embraced the new proposed training. Feedback was accepted from the officers and, when appropriate, it was introduced into the training protocol. Sergeant Pres then conducted several live-fire drills that were developed with the new training concept in mind. The level of stress was slowly increased so that eventually it duplicated (as near as possible) the stress of a real lethal encounter.

In the end, Sergeant Pres developed a new firearm-training model that had complete support of the department executives, the line officers, and their

labor association. More importantly, as a result of the training, it appeared that Sergeant Pres's officers were better prepared to survive a lethal encounter.

These scenarios were created based on input from the NGT panel. Their collective information indicated that a police officer's tactics, judgement, and overall performance could be improved during a lethal force encounter by incorporating the physiological effects of stress into firearms training. In fact, their feedback indicated that a law enforcement agency is compelled to continuously search for advanced training methods ensuring its police officers are performing at optimum levels.

Chapter 3

Strategic Plan

Historically speaking, law enforcement agencies have relied on the police academy to provide the basic firearms training for their sworn personnel. However, considering the resources expended for civil defense, litigation, and financial judgements levied against police agencies, it seems logical to assume that police officers are not receiving the best possible firearms training. If the desired future is to improve the officer's decision-making and tactical performance in a lethal encounter, then incorporating the physiological effects of stress into the training process is necessary. The training concept is scientifically supported by research in the area of human body dynamics and is currently being researched a number of law enforcement agencies throughout the United States.

This strategic plan was developed, in part, based on the information extracted from the scenarios. Moreover, if law enforcement agencies continue to use outdated firearms training, its personnel will eventually fall short of expectations established by the agency and the community they serve.

Situational Analysis

Prior to any consideration of future training needs, it is necessary to examine how law enforcement agencies currently prepare their personnel for critical decision-making during a lethal encounter. Other than advanced firearms schools offered by private vendors or the local county sheriff's department, law enforcement agencies have attempted to provide their own firearms training.

Even agencies with large training budgets have missed the mark when attempting to improve the decision-making skills of their personnel in critical environments, in part, because training coordinators continue to invest in antiquated firearms training.

One must also consider the ability of smaller agencies to offer their personnel advanced firearms training. These agencies are often limited in both external and internal resources, yet must meet the same mandates required by their state government as their larger counterparts. Law enforcement agencies throughout the United States are facing reductions in their training budgets. If department's only offer mandated training to their personnel and continue to neglect tactical performance in critical environments, they will find themselves involved in more civil action, attempting to explain the agency's training philosophy.

There are currently a number of firearms experts employed by law enforcement who support the concept of critical stress training. However, the philosophy is not embraced throughout the policing community. Yet, Department's continue to express dismay at the number of lawsuits and judgements they incur as a result of poor tactics or bad decisions.

Stakeholders

In order to recognize the potential impact of incorporating critical stress into firearms training, it is important to identify the stakeholders. Stakeholders, are those individuals or groups that can have an impact on the development of new firearms training program within a given organization. Stakeholders are also

those individuals who would be impacted by the development of an advanced firearm's program. When considering all eventualities, stakeholders must also identify potential individuals, trends, or events (snaildarters) that can prevent them from reaching their desired goal.

As stakeholders, local, county, state and federal agencies would greatly benefit from a high-stress firearm's course. Agency executives must realize that their personnel could, at any moment, be involved in a critical situation, which requires their peak performance. As employees become more conscious of their tactical performance and apply the skills acquired during the firearms training, their decision-making skills will improve thereby reducing the potential threat of civil action.

A primary stakeholder concerning this issue is the law enforcement community. Department executives hold the key to expanding their agency's firearms training. They are the individuals who can influence budgets, staff, and other resources to ensure the success of a new training program. However, in order to create a new system, the Chief Executive must believe in the concept of stress firearms training.

The sworn personnel participating in the training represent a large number of stakeholders. There are several reasons why a police officer would want to participate in a high stress firearms course, including increased officer survival, improved decision-making, and an opportunity to avoid costly litigation or personal civil exposure.

One of the most important stakeholders is the community. Clearly, the citizens of our communities would benefit if their officers had the ability to improve decision-making and tactical performance in a critical stress environment. Police officers who were aware of how stress impacted their performance and decision-making would be in a better position to make a sound decision given a specific set of circumstances. For instance, a police officer exposed to critical stress firearm's training could call upon his/her past experiences, apply the concepts learned, and reduce the possibility of panic that could lead to a tragic outcome.

There are several obstacles, or snaildarters, that could prevent the development of high-stress firearms training course for law enforcement agencies. These include relying on antiquated training methods, a lack of funding, or an increase in work related injuries as a result of the firearm course.

A large number of agency executives have proven to be very territorial when it involves lethal force issues. Their concepts of lethal encounters may be distorted, in part, as they reference prehistoric training methods and personal experience. More often than not, by the time an employee obtains the position of chief executive officer, the firearms training received is not necessarily contemporary. The executive is under the mistaken belief that the training received is still valuable for current tactical needs.

Funding or a cutback in a department's training budget will also create obstacles in the development of a high-stress firearm's course. Mandated training imposed by the governing municipalities and the inability to fund

advanced firearms training will have a significant impact on the new training concept.

Lastly, if the department, city officials, community members, and other stakeholders embrace the philosophy that a high stress firearm-training course will improve decision-making skills and tactical performance in a lethal encounter, then officers will be less suspicious of a new concept. However, stakeholders must also be concerned with the potential negative impact a high stress firearm training program could have on participating personnel. That is, officer's participation could result in several work-related injuries and or long term disabilities. Depending on the number of injured officers, the firearms program could be cancelled.

Implementation Strategies

The creation of a high-stress firearm course capable of inducing a physiological change in the participant's body is not an easy task to accomplish. The vast majority of modern range masters agree that a high stress firearm course would greatly benefit all concerned stakeholders; however, an idea on how to create such a course remains the question. In order to facilitate effective change, law enforcement executives and their staff must develop strategies that will ensure a quality course.

Agency executives must agree upon the value of a high-stress firearm course. The course itself must be capable of duplicating the stress an officer would encounter in the event of a lethal force situation or other significant incident. The training course must mirror a real field situation, which would

provide the officers with combat experience. The continued exposure would inoculate the officers with combat experience that can be called upon in the event of a high stress situation.

There are several benefits to an agency developing high-stress firearms course. First, the department would be able to standardize its lethal force training for all sworn personnel. Additionally, tactics, decision-making, and verification of lethal force encounters would be easily documented and therefore could be defended in a court of law if civil action were levied against a Department as a result of an officer's actions.

A buy-in, at the ground level, by local police academies would also greatly benefit the recruits. In theory, the officer would be better prepared to bring a critical situation to a successful conclusion. Recruits would understand how stress impacted their tactical performance and decision-making skills and could recognize warning signs of decreased performance.

If the law enforcement executives examine private vendors who provide advanced firearms training, they would realize these companies have attracted a wide range of law enforcement customers. Enrollment would not be limited to experienced police officers. Both new recruits and officers with limited field experience have participated in private survival courses, in part, because their agency has failed to adequately prepare them for a lethal encounter. In order to achieve credibility, departments must be able to provide the vast majority of their own lethal force training.

A more aggressive strategy would be for several local agencies to develop a team firearm-training cadre capable of providing advanced combat training for a variety of Departments. Policies, training methods and philosophies would have to be established and agreed upon by agency executives and all would have to support the concept of a high-stress firearm's training course.

Transition Management Plan

Scenario Three described earlier in this document outlined a desired future where a high-stress firearm's course was developed with the understanding that the physiological effects of stress on a police officer during a critical stress environment can have a tremendous impact on their tactical performance and decision-making. The historical perspective illustrated current lethal training efforts afforded to law enforcement officers and the shortcomings experienced as a result of the limited training. Law enforcement executives, in general, comprehend the current training methods used to instruct personnel in the use of lethal force and should aspire to create change, effectively taking lethal force training to a new level.

Readiness Assessment of Stakeholders

One could argue that the primary stakeholder is the community we serve and protect. The civil judgements leveled against law enforcement agencies rely on taxpayer money to compensate the plaintiff. Civil action can be demoralizing and can create distrust by community members of their police department. Therefore, the community, in general, expects its police force to receive the best

possible training concerning lethal force issues, thus reducing civil litigation and increasing the quality of service.

Another primary stakeholder concerning the issue of advanced firearms training is the department and its staff of sworn personnel. By offering a high-stress firearm's training course, department executives would be, in essence, stating they are concerned about an officer's tactical performance in a critical stress environment and that they will, to the best of their ability, help prepare personnel for a lethal event. The rank and file would embrace any quality firearms training and would ensure its success by aggressively participating in such a course. The potential reduction in civil action would most certainly offset the department's initial expense of creating a high-stress firearm program.

It appears by all standards that most law enforcement agencies and the communities they serve would support a high-stress firearm-training course. Educating the key community members, department executives, and the line officers will be the key to the future success of a high-stress firearm course. Supporting elements (community, Department, and officers) must recognize that past training methods have proven inadequate and have had a tremendous impact on local budgets and the ability of municipalities to pay civil judgements.

Transition Team

In order to accomplish the goal of creating an effective high stress firearm's training course; several people will need to be selected to ensure a successful outcome. The transition team should be small enough to avoid administrative obstacles, yet immersed in the concept of a new training format.

At medium sized law enforcement agency, like the Santa Monica Police Department, the transition team could be housed in the Office of Administrative Services, Training and Development Division. The team members should consist of the following personnel: the Administrative Captain, the Training Sergeant, the officer responsible for the development of policy and procedures, the range master, and one to two line officers. The transition team would be responsible for the research, development, budget (concerns), equipment and the initiation of the program. To accomplish the mission, the transition team would meet routinely with one another, report on their progress and maintain open communication with the chief executive officer and other concerned stakeholders.

Activity Plan

When the transition team has been selected, a vision or activity plan must be formulated to affect the development of a high stress firearm-training course. The team will need to meet with the chief executive officer and explain their concept of a high stress firearm training course and all related issues. In turn, the chief executive would be better prepared to present the concept to the city manager and other city officials, adequately addressing their concerns and explaining the potential benefits of the program.

During their research and development the team members would also consult the manufacturers of training equipment allowing them to develop a potential cost analysis, assessing both long and short financial impact on the Department's budget. They may also interview representatives from other

organizations who have instituted a similar program. The insight and feedback received would be tremendous, and could assist the transition team in avoiding potential obstacles.

The transition team should engage members from the labor groups who represent sworn personnel and discuss the concept of the new training format since the new program may impact their work conditions, benefits, and safety.

After the transition team has consulted all concerned parties and stakeholders, they could present to the chief executive officer their recommendations on a totally new training concept which would include incorporating enough stress into firearms training to induce a physiological change in the officer's body. The transition team should recommend an evaluation period for the new training concept allowing for input and feedback during the examination period. The evaluation period would allow a chief executive officer the opportunity to assess whether or not the new firearms training was beneficial to the department, the officers and the community.

In order to impact the method by which law enforcement agencies train its personnel for lethal force situations, chief executives must be critical of their officers. If an officer falters in tactics, judgement, or performance during a lethal encounter, training methods must be reexamined to ensure they are current and challenging enough to create a physiological change in the participant's body.

Chapter 4

Implications on Leadership

There are several potential impacts on leadership concerning this issue. The leaders of any law enforcement agency, including the Santa Monica Police Department, are obligated to continually evaluate firearms training methods, pursuit driving skills, and other critical stress situations that may confront their personnel. Their performances in high stress situations are critical to the survival of any modern police department.

Recently, several chief executive officers have been terminated from their respective agencies on the outcome of a police shooting. Moreover, the financial impact of a city's having to pay multi-million dollar judgements has been crushing. The individual officer faced with a life and death decision, such as a lethal encounter with an armed suspect, is often the subject of ridicule, or in some cases of negligence and finds himself/herself facing a criminal review.

In modern policing, sworn personnel are expected to make split second decisions when faced with a lethal encounter. Their performance is based on the tactical training they received from the agency that employs them. Although the vast majority of these encounters have been successful, one must examine the outcome of those resulting in the death of an officer, serious injury to an innocent by-stander, or a major civil action.

Historically, police personnel have looked to their leaders to address these types of issues. The police officer, recruit or veteran, expects modern equipment and training which allows his/her to perform his/her duties with efficiency, honor,

and professionalism. It does not reflect well on the organization that if approved tactics, equipment, and training do not evolve with the changing needs. If the trust between the line officers and top agency executives is damaged or destroyed, the negative impact on the health of the department can be tremendous. Therefore, in order to stay focused on the mission of law enforcement, agency personnel must collaborate, evaluate, and communicate their training needs.

Another primary impact on leadership of any law enforcement organization is the ability of top administrators to reduce the financial impact on their budgets as a result of civil action. Departments recognize the increase in recent civil action taken against law enforcement agencies. In recent years, the vast majority of the major litigation has been as a result of police shooting. However, most departments continue to utilize old and antiquated training methods. If chief executive officers embraced a new training philosophy, built on the foundation of moral, ethical, and legal concepts that offered field officers the opportunity to improve their tactical performance and critical decision-making skills in a lethal encounter, true leadership would be accomplished.

Funding and Budgetary Issues

Funding a high-stress firearm program capable of inducing a physiological change in the participant's body is not necessarily a complex task. The program could be introduced to an agency at a basic level, which would include the purchase of force on force equipment. The course could be held at any facility currently utilized by the department to qualify its personnel. There are currently

several private vendors who design, develop, and manufacture force on force equipment. Basic systems are inexpensive, dependable, and can be supplemented with compatible upgrades if required. The more advanced systems can be extremely expensive; however, they are not necessary to develop a basic high stress-training program. Funding for the purchase of the equipment could come from a variety of sources including local, state or federal grants, private vendor donations, and or asset forfeiture funds.

However, the primary concern relating to budgetary implication lies with an increase in duty-related injuries as a result of an aggressive firearm's training course. Assuming that the agency supports a concept of a high-stress firearm course, then it would be logical to assume that he/she would also understand that duty-related injuries could occur as a result of the training. Preliminary research indicates that sworn personnel participating in a high-stress firearm's training course have suffered serious injuries as a result of their reaction to the stimulus.

Evaluations Activities

There are several methods of evaluating the success of a high-stress firearm-training course capable of inducing a physiological change in the participant's body. However, the following critical assessment areas would provide command staff with the best possible information allowing an accurate evaluation of the course:

- Were civil lawsuits reduced over the period of time the new training was installed?

- Were the field tactics used during critical stress situations after the initiation of the new training program safer than when officers were trained using antiquated firearm training?
- When faced with a lethal situation, did responding officers act prudently and consider other tactical options prior to the use of deadly force?
- Did the total number of work-related injuries suffered by the officers participating in the high-stress firearm's training course increase, decrease, or remain the same when compared to a prior firearm's program?
- Did the field officers support and believe in the new training philosophy?
- Was the new firearm-training program too basic or too advanced?
- Were top executives better prepared to critique an Officer Involved Shooting after receiving and or participating in the high stress firearm's course?

Related Issues

Although the focus of this project is to raise the level of awareness concerning the physiological effects of stress impacting an officer during a lethal encounter, there are several sub-issues that should be explored. Future studies may consider exploring such issues as Situational Amnesia. Often, the involved officer is not able to recall specific events that occurred during the incident, leading authorities to speculate that the officer is fabricating information. Another area worthy of research is post-traumatic stress on the officer's family after a lethal encounter. Often the police officer's family is left to ponder odd or even violent behavior displayed by the officer immediately after the officer is involved in a shooting resulting in the death of an individual.

Recommendations

The potential impact on the human body caused by the physiological effects of stress during a critical stress environment must be communicated to the law enforcement community. It is no longer acceptable for agency executives to state they have a total understanding of the dynamics that can occur in a police shooting when they do not possess the knowledge of how stress impacts an officer's tactical performance.

Department executives must possess the knowledge of advanced firearms training, the dynamics of a shooting, and how the body reacts to danger if they are to effectively evaluate an officer's tactical performance during a lethal encounter. Therefore, it is recommended that this project be made available to various stakeholders and other concerned parties in an attempt to expose them to the alternate firearm training methods.

It is also recommended that this study be made available to local, state and federal agencies that are responsible for the prosecution element of the judicial system. These agencies and their representatives would greatly benefit from the information concerning an officer's tactical performance while exposed to stress and, therefore, be better prepared to present a case to a criminal or civil jury.

Conclusion

It is the opinion of some chief executives that the primary goal of a high-stress firearm-training program is to develop field personnel to their full tactical potential. By repetitive exposure to a high-stress firearms course and education

of body dynamics, sworn personnel will develop better decision-making skills and tactical performance should they be faced with a lethal force situation.

However, a high-stress firearm-training program should not be considered a panacea. Rather, it is a training tool that could be utilized to improve critical decision-making and tactical performance. Basic proficiency skills, video technology training, and other proven training methods should support the high-stress firearm's course.

Even though increased officer safety is easily identified, as a primary consideration for the development of a high-stress firearm program, chief executives should consider the aspect of a reduction in civil liability as a result of advanced firearm's training. The potential cost reduction in courtroom litigation defense of personnel, civil judgments/awards, and case preparation to a police department would clearly outweigh the cost of developing a high-stress firearm's training course.

The effect of stress upon an officer's body during a lethal force encounter is not left to speculation. The body's reaction is real and is well documented through scientific research. Training instructors can only hope to expose officers to critical stress through training scenarios which closely duplicates a lethal force situation, if they hope to better prepare sworn personnel for dealing with critical stress.

Law enforcement executives are obligated to provide the best possible training for their employees. As the level of criminal complexity changes, so must

the training methods used by police departments to train and prepare their personnel.

Agency executives must ask themselves if they can improve officer safety by incorporating sufficient stress into their firearms training capable of inducing a physiological change in the participating officer's body. If they are seeking to improve decision-making and tactical performance in lethal encounters, then they are obligated to explore alternative methods of impacting an officer's training performance under controlled condition. Only through routine exposure to high levels of stress can officers gain insight and experience into their potential reaction to a lethal force encounter.

If law enforcement agencies continue to train its personnel with out dated firearm tactics, enormous civil judgements will continue to be paid out. The alternative is clear. By incorporating physiological effects of stress into firearms training, chief executive officers will ensure they have taken the necessary steps to better prepare their personnel for a lethal force encounter.

END NOTES

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⁴ Bruce K. Siddle, *Sharpening the Warrior's Edge*, PPCT Management Systems, Inc. (1995), 7.

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⁷ George T. Williams, *Reluctance to Use Deadly Force*, FBI Law Enforcement Bulletin (1999) 1.

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APPENDIX A

PANEL MEMBERS – NOMINAL GROUP TECHNIQUE

Conducted by Phillip L. Sanchez
Santa Monica Police Department
December 16, 1999

Jeanette Schachtner, D.C.A.

City of Santa Monica, City Attorney's Office – Ms. Schachtner currently serves as a Deputy City Attorney for the City of Santa Monica. Her primary duties are focused on civil litigation. Ms. Schachtner has successfully defended against several civil actions that were levied against the Santa Monica Police Department. Ms. Schachtner has attended Use of Force Seminar attempting to expand her knowledge on arrest tactics, firearms, and police procedures.

Victoria Havasey, Psychologist

Dr. Havasey has been in private/public practice for over 20 years. She served as a Reserve Police Officer for the Los Angeles County Sheriff's Department and is familiar with police procedures and tactics. Dr. Havasey currently provides critical stress debriefings following police shootings involving Santa Monica Police Department personnel. To date, Dr. Havasey has conducted over 100 such interviews.

Bernard Melekian, Chief

Pasadena Police Department – Chief Melekian has over 27 years of law enforcement experience. He has served as the Commanding Officer of a major Special Weapons Team and has also served as a Team Leader and Operator. Chief Melekian is an active member of the Peace Officers Association of Los Angeles County.

Michael Lavin, Police Captain

Hermosa Beach Police Department – Captain Lavin has over 22 years of law enforcement experience. He has worked a variety of assignments throughout his career and was the author of an extensive research paper concerning a regional training center for South Bay Law Enforcement Agencies.

Michael Albanese, Police Lieutenant

Los Angeles Police Department – Lieutenant Albanese has over 25 years law enforcement experience. He was recently transferred from the Department's Special Weapons Team after several years of distinguished service. Lieutenant Albanese is an international recognized expert in Special Weapons and Tactics and in the field of Crisis Negotiation.

APPENDIX A (CONT)

Sandy Terhune, Police Officer

Santa Monica Police Department – Officer Terhune has over 12 years of law enforcement experience. She recently completed her Masters Degree in Psychology and is the founder of the Department's Peer Group Counseling Program and she serves as a primary negotiator for the Department's Crisis Negotiation Team.

Roy Burns, Deputy Sheriff

Los Angeles County Sheriff's Department – Deputy Burns has over 20 years of law enforcement experience. He is currently assigned to the Department's Special Weapons Team (SWT) and has held the positions of scout, back-up scout, and team leader. Deputy Burns is a key instructor in team tactics, firearms, and field deployment. He currently serves on the training cadre for the Special Weapons Team.

Jason Mann, Range Master

Santa Monica Police Department – Mr. Mann currently serves as Chief Range Master for the Santa Monica Police Department. He has over 10 years of law enforcement experience with the Los Angeles County Sheriff's Department where he served in a variety of field assignments. Mr. Mann has extensive experience with the United States Marine Corps where he served as an instructor in small unit/weapons tactics.

Cathy Rosenberg, Communications Manager

Santa Monica Police Department – Ms. Rosenberg currently serves as the Communications Manager for the Santa Monica Police Department. She has extensive experience in dealing with high-risk situations including Officer Involved Shootings, death investigations, and vehicle pursuits. Ms. Rosenberg facilitates critical stress debriefings for her personnel following any major incident involving the Communication Center.

APPENDIX B

COMPARATIVE POLICE AGENCIES CITED
IN THIS STUDY - DECEMBER 1999

Agency

Santa Monica Police Department

Inglewood Police Department

Culver City Police Department

UCLA Police Department