USE OF FORCE COMMITTEE

Final Report

Many are left to wonder whether there was not some other way the situation could have been resolved... (Geller, Scott: vvi)

MAY 1998

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THE USE OF FORCE COMMITTEE

COMMITTEE MEMBERS

Staff Inspector Ken Cenzura, Sexual Assault Squad
(Chair)
Staff Inspector John Mellor, Training and Education
Staff Inspector Selwyn Fernandes, 14 Division
A/Inspector Wes Ryan, Public Safety Unit
A/Inspector Wayne Cotgreave, Chief's Staff
Detective Sergeant Michael Federico, Detective Support Command
Detective Sergeant Brian Raybould, Operational Support Command
A/Staff Sergeant Peter Button, Training and Education
Sergeant Glenn DeCaire, Training and Education
Sergeant Ron Aalen, Corporate Planning
Sergeant John Howell, Emergency Task Force
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with assistance of

Andrew Clarke, Toronto Police Association
Dr. Peter Collins, Forensic Psychiatrist

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Acknowledgements

The Committee wishes to acknowledge the assistance and co-operation received from Victoria Police of Australia, Metro Dade Police in Florida, other police institutions and agencies that were consulted, and the Queen Street Mental Health Care Centre. In particular, the Committee wishes to thank Assistant Commissioner Ray Shuey of Victoria Police. He generously provided insight and guidance based on Project Beacon and granted our Committee members access to individual members of his Service to further our research. As well, the Committee is grateful for the opportunity to work with Ms Allison Stewart, Chief Executive Officer, Queen Street Mental Health Care Centre, and members of Workman's Theatre Project in presenting the play Vincent. In addition, the team is grateful for the input and support it received from the Florida Martin Luther King Jr. Institute for Non Violence. Finally, the team would like to express its appreciation to all members of our Service who participated in surveys and interviews, for their thoughtful and informed comments and advice.

USE OF FORCE COMMITTEE

FINAL REPORT

EXECUTIVE SUMMARY

In May, 1997, the Chief of Police, David Boothby, established a committee to review all aspects of police use of force. The mandate of the Committee was, "to examine if there are ways to reduce the necessity for the application of deadly force, without compromising officer safety, and to communicate findings to the public (TP Media Release, 97.06.16)." Staff Inspector Ken Cenzura was named chair.

The *Use of Force Committee* was comprised of representatives from the Training and Education Unit, the Emergency Task Force, Public Safety Unit, Corporate Planning, Operational Support Command, the Chief's Staff, Detective Support Command, and the Field Commands. As well, the Service's Forensic Consultant, Dr Peter Collins, and Constable Andrew Clarke, Toronto Police Association, participated.

The use of deadly force by police in recent years has come under closer scrutiny by the police and the community. The issues surrounding such use of force are complex and have generated much debate and concern. At the outset it must be stated that the **safety of police officers is recognized as a fundamental concern** and this report and subsequent recommendations are not intended to compromise that safety in any way. Indeed, the issue of officer and community safety formed the foundation for the Committee's work. This report also takes into account that there are no philosophies or practises which will anticipate the entire range of human behaviour that officers might encounter in the course of police work. Nevertheless, the Committee recognizes its responsibility to explore any reasonable option if it may help officers cope with violent or potentially violent situations.

The Committee has conducted extensive research into this topic by contacting many other police agencies in Canada, the United States and Australia. Further research was conducted by reviewing the literature, academic studies, correspondence, books and publications associated with the use of deadly force, less lethal weapons and dealing with emotionally disturbed persons. While much of the empirical data had been collected outside of Canada, many of the lessons learned from the research have equal application to law enforcement in our country.

A survey of front line officers representing the field command was conducted resulting in valuable input touching on the issues identified by the Committee. As well, the

Committee collected data on officer involved shootings in Toronto during the past 10 years, which allows an analytical study of these incidents to be completed.

The Training and Education Unit was tasked with reviewing current training dealing with crisis resolution. As a result a proposed course was drafted that attempts to incorporate the findings of the Committee. The course is designed to meet the needs of front line officers. The emphasis will be upon identification and transition from one force option to another force option within the context of the scenario, thus establishing versatility and flexibility in crisis resolution techniques. While recognizing that officer safety is the critical concern, the course will balance the emphasis placed on force options between escalation and disengagement and containment responses.

On the matter of less lethal weapons, a comprehensive study was performed by Acting Staff Sergeant Peter Button, Armament officer, Training and Education Unit. He has concluded that at the present time the Service should rely on conventional equipment such as O.C. spray and batons.

Terms of Reference

A broad spectrum of issues was identified including the nature and availability of rules and directives, training and equipment, Service resources and support, community and professional resources and support; and reliable internal information and data. The Committee undertook to respond to the following six areas which have become the Committee's *terms of reference.*

1. Development of and Compliance with Rules & Directives.
2. Supervision.
3. Development and Implementation of Appropriate Training.
4. Identification of Less Lethal Force Options.
5. Dealing with Emotionally Disturbed Persons.
6. Expansion of Emergency Task Force Special Weapons Teams.

The Committee worked from May 1997 to March 1998. It found that experiences faced by our organization, in relation to officer involved shootings, mirror those of other law enforcement agencies and therefore validate the research and research methods of the Committee. Consequently, to address the findings, 31 recommendations, grouped according to the Terms of Reference, are proposed. The Committee is of the view that some of the recommendations can be implemented immediately with minimal impact on the operating budget. The remaining recommendations have financial implications totalling $2.39 million, which may affect scheduling. However, with their implementation, the Committee is convinced these recommendations will enhance officer and community safety, thereby promoting public confidence in our Service.

USE OF FORCE COMMITTEE

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SUMMARY OF RECOMMENDATIONS

1. RULES AND DIRECTIVES

1.1 THAT Corporate Planning develop rules and directives governing the use of lethal force. Such rules and directives should clearly indicate that the Service places the highest value on the protection of life and the safety of its officers and the public (page: 12).

1.2 THAT Corporate Planning ensure that the rules developed include the following rules consistent with the Police Services Act and the Criminal Code of Canada (page: 12).

- **police officers shall not discharge their firearms except to protect themselves or another person from imminent death or serious bodily injury;**
- **police officers shall not discharge their firearms to subdue an escaping suspect who presents no imminent threat of death or serious bodily harm;**
- **police officers shall not discharge their firearm at a motor vehicle for the sole purpose of disabling it;**
- **police officers shall not intentionally place themselves in the path of an oncoming vehicle and attempt to disable the vehicle by discharging their firearms;**
- **police officers shall not discharge their firearm at a moving vehicle or from a moving vehicle unless it is absolutely necessary to do so to protect against an imminent threat to the life of the officer or others;**
- **warning shots present an unacceptable hazard to both the public and the police, therefore warning shots are prohibited.**

1.3 THAT Corporate Planning review and consolidate all current rules governing the use of lethal and less lethal force to ensure that officers can quickly locate and clearly understand guidelines they are required to follow (page: 15).

1.4 THAT Corporate Planning incorporate the use of colour coding when developing and pub-

lishing rules and directives (page: 15).

1.5 THAT Professional Standards maintain the Officer Involved Shooting database designed by the Use of Force Committee (page: 16).

2. SUPERVISION

2.1 THAT the Chief of Police ensure supervisory staffing levels of uniform platoons are consistent with recommendations contained within the Beyond 2000 Implementation Final Report, to ensure the availability of road supervisors within each Division or Command at all times (page: 17).

2.2 THAT the Chief of Police ensure supervisors recognize good judgement by way of formal documentation when officers exercise restraint or minimize the use of force in violent or potentially violent situations (page: 19).

2.3 THAT the Chief of Police recommend to the Toronto Police Services Board that it provide appropriate remuneration for the position of "Coach Officer"(page: 20).

3. TRAINING

3.1 THAT Training and Education develop and institute a mandatory Crisis Resolution/Officer Safety Course for all front line officers (page: 22).

3.2 THAT Training and Education incorporate rule interpretation into the pre-course material of the Crisis Resolution/Officer Safety Course (page: 22).

3.3 THAT Training and Education incorporate fear management into the Crisis Resolution/ Officer Safety Course content (page: 22).

3.4 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive the Crisis Resolution/Officer Safety Course (page: 22).

3.5 THAT the Chief of Police ensure sufficient ongoing use of force training, designed to enhance officer and public safety, occurs which would feature de-escalation techniques and tactical communication in order to optimize the force alternatives available to the officer (page: 29).

3.6 THAT Training and Education in conjunction with the Emergency Task Force develop and deliver to members of each field platoon a training course designed to enhance the use of control, containment and disengagement tactics (page: 30).

3.7 THAT Training and Education in conjunction with the Emergency Task Force develop and deliver to specialized units a course designed to provide tactical training on the approach

and handling of potentially violent situations (page: 31).

3.8 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive training in the use of oleoresin capsicum spray (page: 31).

3.9 THAT Training and Education provide mandatory training for all front line police officers, whether in uniform or plainclothes, on the use of oleoresin capsicum spray (page: 31).

3.10 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive training on the use of both the Casco Straight Baton and the ASP Expandable Baton (page: 32).

3.11 THAT Training and Education provide mandatory training for all front line police officers, whether in uniform or plainclothes, on the use of both the Casco Straight Baton and the ASP Expandable Baton (page: 32).

3.12 THAT Training and Education, maintain an appropriate resource base of suitable professionals, including a forensic psychiatrist, to assist in the development and implementation of training (page: 32).

4. LESS LETHAL FORCE OPTIONS

4.1 THAT the Chief of Police equip all front line uniform and plainclothes police officers, who have completed the required training, with belt-carried oleoresin capsicum spray (page: 34).

4.2 THAT the Chief of Police equip all front line uniform and plainclothes police officers, who have completed the required training, with both the Casco Straight Baton and the ASP Expandable Baton (page: 35).

4.3 THAT the Chief of Police direct that an operational pilot project be conducted to evaluate the effectiveness and practicality of equipping selected patrol vehicles with large 400 gram containers of Oleoresin Capsicum aerosol spray (page: 35).

4.4 THAT a standing committee be established within the Service to research, test and evaluate less-lethal weapons as they become available to law enforcement (page: 37).

5. DEALING WITH EMOTIONALLY DISTURBED PERSONS

5.1 THAT the Unit Commander of Community Policing Support Unit establish and chair a standing committee mandated to identify, develop and co-ordinate suitable responses and resources to help the Service effectively intervene when dealing with the emotionally disturbed (page: 38).

5.2 THAT the Community Policing Support Unit establish partnerships with mental health care agencies to promote public awareness regarding available support for the emotionally disturbed and their families (page: 41).

5.3 THAT the Community Policing Support Unit co-ordinate the completion of the proposed handbook dealing with officer response to mental illness (page: 42).

6. EMERGENCY TASK FORCE SPECIAL WEAPONS TEAMS

6.1 THAT the Emergency Task Force continue the Deployment Strategy outlined in the Unit Memo of 97.05.22 which directs units to patrol each of the Field Commands (page: 43).

6.2 THAT the Chief of Police authorize an increase in staff of the Emergency Task Force to allow for an additional Special Weapons Team (page: 43).

7. GENERAL

7.1 THAT the Chief of Police establish a standing Review of Deadly Force Committee to review all use of force initiatives, rules, technology and training and explore new innovations (page: 45).

7.2 THAT the Chair of the Review of Deadly Force Committee in conjunction with Corporate Communications ensure the public is kept informed of the development and implementation of the recommendations contained within this report (page: 46).

USE OF FORCE COMMITTEE

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INTRODUCTION

Of all the decisions a police officer is called upon to make, none has greater impact than the decision to use deadly force (U.S. Department of Justice: 15).

Death at the hands of the police prompts confusing emotions for the victims' family, fellow police officers, government officials and the public who must stand in judgement of the event. Given that the highest calling of police duty is to protect life, a sense that something has gone wrong is appropriate, even if the death proves to have been legally justifiable. Many are left to wonder whether there was not some other way the situation could have been resolved and whether the shooting was absolutely necessary (Geller, Scott: vii).

During the first four months of 1997, there were four incidents where officers of the Toronto Police Service used deadly force. The use of deadly force by police in recent years has come under closer scrutiny by the Service and the community. In May, 1997, the Chief of Police, David Boothby, established a committee, "to examine if there are ways to reduce the necessity for the application of deadly force, without compromising officer safety, and to communicate findings to the public (MTP Media Release, 97.06.16)."

The Committee, known as the *Use of Force Committee*, chaired by Staff Inspector Ken Cenzura, Detective Support Command, consisted of representatives from the Training and Education Unit, the Emergency Task Force, Public Safety Unit, Corporate Planning, Operational Support Command, the Chief's Staff, Detective Support Command, and the Field Commands. As well, the Service's Forensic Consultant, Dr Peter Collins, and Constable Andrew Clarke, Toronto Police Association, participated.

The Committee undertook to research the issues and develop effective responses in the form of responsible recommendations. Furthermore, it was agreed that if during the review any matters were identified that could be addressed immediately, the Committee would respond promptly. For example, early on, the Committee recognized that Service

rules and directives would be affected by the findings and recommendations. Accordingly, members of the Committee and Corporate Planning are currently developing a draft Use of Force Rule. The Committee also appreciated that the Emergency Task Force remained an excellent resource for field personnel during critical incidents. As a result, on May 22, 1997, the Task Force specifically deployed its Special Weapons Teams in a manner that provides consistent coverage to each of the three Field Com-

mands. Furthermore, as a result of the Committee's work, the Community Policing Support Unit, has moved forward on producing the Toronto Police Reference Handbook on the Emotionally Disturbed. The Unit is also nearing completion of a Service form designed to capture important information about individual emotionally disturbed subjects. This information will help care providers identify the needs of the subject so that follow up care can be quickly available. In addition, the unit is studying the feasibility of expanding, city wide, an agreement reached with the Scarborough General Hospital to streamline admission procedures for emotionally disturbed patients.

Underlying Principles

At the outset, it must be stated that the **safety of police officers is recognized as a fundamental concern**. Consequently, this report and its recommendations are not intended to compromise that safety in any way. Indeed, the issue of officer and community safety formed the foundation for the Committee's work.

This report also takes into account that there are no philosophies or practices which will anticipate the entire range of human behaviour that officers might encounter in the course of their work.

Methodology

The Committee conducted extensive research into this topic by consulting widely within our Service, with other police services in Canada, the United States, and Australia; and with community agencies, medical centres, and educational institutions and research centres. Further research was conducted by obtaining and reviewing the literature, academic studies, and institutional policies related to the use of deadly force, less lethal weapons, and dealing with emotionally disturbed persons. Specifically, Committee members interviewed police researchers, consultants, instructors, psychologists, patrol officers and commanders, along with mental health professionals and their clients, and community representatives. Committee members also attended and sampled training and instructional sessions, focussing on non violent police response and less lethal use of force, at the Metro Dade Police Training Bureau in Miami Beach Florida, USA; the Ontario

Provincial Police Headquarters, in Orillia, Ontario, and the Canadian Police College, Ottawa, Ontario. While much of the empirical data has been collected outside of Canada, many of the lessons learned from the research have equal application to law enforcement in our country.

A survey of front line officers representing the field commands was also completed, touching on the issues identified by the Committee. Finally, the Committee collected data on officer involved shootings in Toronto during the past 10 years, which allows an analytical study of these incidents to be completed..

Scope

A broad spectrum of issues was identified including the nature and availability of rules and directives, training and equipment, Service resources and support, community and professional resources and support; and reliable internal information and data. The issues were considered in the context of available, practical alternatives to police use of force and, particularly, the use of deadly force. As Committee work progressed these were refined and supplemented as new information was gathered. Consequently, the Committee undertook to respond to the following six areas which have become the Committee's *terms*

of reference.

1. Development of and Compliance with Rules & Directives.
2. Supervision.
3. Development and Implementation of Appropriate Training.
4. Identification of Less Lethal Force Options.
5. Dealing with Emotionally Disturbed Persons.
6. Expansion of Emergency Task Force Special Weapons Teams.

Within these terms of reference, the Committee concluded that:

- there are situations where deadly force is avoidable and officers should consider disengagement or tactical repositioning. In the view of some officers, though, disengagement may be considered a "retreat", "an objectionable concept to many police officers (Geller, Scott: 310)." However, instruction that emphasizes the use of these options, as part of judgement training, may combat a police culture which values direct action - improving the chances of successful non-violent conclusions to incidents;

- officers need the skills to negotiate during volatile situations;

- there is a need to emphasize officers' responsibility to isolate and contain the situation until the arrival of personnel specially trained to deal with the matter;

- although the Service maintains a use of force data base there is a need to include additional information from police related shootings;

- officers should be discouraged from shooting at or from moving vehicles because it is always dangerous and rarely effective;

- officers require enhanced training to better understand emotionally disturbed persons, especially in volatile situations so that officers can better control their own fears;

- the advice and instruction available to the Service through a forensic psychiatrist has proven invaluable;

- enhanced uniform supervisory levels are required;

- that there is a need for professional, enthusiastic coach officers who, as role models, will help instill positive attitudes and values to guide new constables;

- the Service must continue to explore the option of less lethal weapons.

The Committee worked from May 1997 to March 1998. It found that experiences faced by our organization, in relation to officer involved shootings, mirror those of other law enforcement agencies, and therefore validate the research and research methods of the Committee. Consequently, to address the

findings, 31 recommendations, grouped according to the Terms of Reference, are proposed. [1]. The Committee is of the view that some of the recommendations can be implemented immediately with minimal impact on the operating budget. The remaining recommendations have financial implications totalling $2.39 million, which may affect scheduling. However, with the implementation of these recommendations, the Committee is convinced the Service will have taken a significant step towards enhancing officer and community safety.

USE OF FORCE COMMITTEE

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FINDINGS AND RECOMMENDATIONS

1. RULES & DIRECTIVES

1.1 THAT Corporate Planning develop rules and directives governing the use of lethal force. Such rules and directives should clearly indicate that the Service places the highest value on the protection of life and the safety of its officers and the public.

1.2 THAT Corporate Planning ensure that the rules developed include the following rules consistent with the Police Services Act and the Criminal Code of Canada:

- **police officers shall not discharge their firearms except to protect themselves or another person from imminent death or serious bodily injury;**
- **police officers shall not discharge their firearms to subdue an escaping suspect who presents no imminent threat of death or serious bodily harm;**
- **police officers shall not discharge their firearm at a motor vehicle for the sole purpose of disabling it;**
- **police officers shall not intentionally place themselves in the path of an oncoming vehicle and attempt to disable the vehicle by discharging their firearms;**
- **police officers shall not discharge their firearm at a moving vehicle or from a moving vehicle unless it is absolutely necessary to do so to protect against an imminent threat to the life of the officer or others;**
- **warning shots present an unacceptable hazard to both the public and the police, therefore warning shots are prohibited.**

RATIONALE

> ***The propriety of using deadly force is the most serious decision facing law enforcement officers (Hall: 32)***

The development of clear and concise policies is necessary to guide the actions of and establish accountability for individual police officers who, on a day to day basis, are responsible for dealing with violent conflict.

Research indicates that until recently, police deadly force policies were either non-existent with some police agencies or were very vague or ambiguous with others. Consequently, officers could find authority to use deadly force even when suspects are fleeing where the offence is minor and the suspect poses no serious threat.

Many of the calls for police policy reform in the 1970s and 1980s expressly urged the adoption of a defense-of-life shooting policy such as that presently used by the FBI. Such a policy permits shooting only to defeat an immediate threat to life.

One area of firearm policies was put to rest in 1985 as a result of a United States Supreme Court ruling in *Tennessee v. Garner* . In this case the Court ruled that indiscriminate use of deadly force to apprehend a fleeing felon is unconstitutional. The practise of shooting at fleeing felons was permitted by common law and by statutes in many States. The court ruled that police officers may use deadly force to prevent a felon from escaping, but only where there is probable cause to believe "that the suspect poses a significant threat of death or serious physical injury to officers or others."

On October 17, 1995 United States Attorney General, Janet Reno, approved a deadly force policy for all government law enforcement agencies within the U.S. Department of Justice. Since then, this policy has been adopted, thus creating for the first time a uniform deadly force policy for American federal law enforcement agencies.

The common threads that run throughout the policy are the establishment of an "imminent danger" standard and the reaffirmation of the basic principle that even when an imminent danger exists, deadly force should not be used if to do so would create an unreasonable risk to innocent third parties. The essence of the policy captioned "Permissible Uses" states:

> Law enforcement officers...of the Department of Justice may use deadly force only when necessary, that is, when the officer has a reasonable belief that the subject of such force poses an *imminent danger* of death or serious physical injury to the officer or to another person (emphasis in the original).

The policy does not purport to answer all of the questions that may confront law enforcement officers on the scene, nor does it attempt to eliminate an officer's ability and responsibility to exercise judgement. Rather, it provides a framework of general principles to guide those judgements - a framework within which each agency is permitted to "develop and conduct its own training on deadly force... (FBI April 1996)."

The shooting policy changes of the Memphis Police Department were the subject of a study by Jerry

Sparger and David Giacopassi (Memphis State University). Memphis was the city where the shooting of a 15 year old unarmed burglary suspect resulted in the landmark decision by the United States Supreme Court in *Tennessee V. Garner* which has been referred to earlier in this report.

The study by Sparger and Giacopassi picked up where another researcher, James Fyfe had left off. Fyfe in his study characterized the Memphis Force as racially discriminatory. According to him, blacks suffered a disproportionate risk of being shot by police. In 1978, the Tennessee Advisory Committee to the U.S. Commission on Civil Rights published a report highly critical of the vagueness of the Memphis Police Department shooting policy, pointing out that deadly force could be used in "self defense and defense of others" and that "[u]nder certain specified conditions, deadly force could be exercised against a fleeing felon (Sparger, Giacopassi: 218) ." According to the report, "the vague wording of the deadly force policy resulted in discriminatory shooting practices; it recommended not simply changing the policy but instituting training procedures to emphasize 'comprehensive, mandatory, and continuous training in the area of police-community relations for sworn personnel' (Tennessee Advisory Committee 1978: 91)." In response to the review by the Advisory Committee and the Supreme Court's decision in *Tennessee v. Garner* (1985), the Memphis Police Department extensively revised its use of deadly force policies and training, emphasizing officer safety and survival instruction.

Since the implementation of these initiatives, in 1985, "there have been *no property crime suspects, fleeing or otherwise,* shot by Memphis police (emphasis added, Geller, Scott: 263)".

Similarly, according to Geller and Scott, the police departments of New York City, Atlanta, Oakland, and the City of Los Angeles, all experienced reductions in police shootings after such policies and training were instituted (263, 264).

It is apparent then, that the development and implementation of a simple, clear, more restrictive use of deadly force policy coupled with training that emphasizes officer safety, is critical to reducing police shootings.

Total Cost: **Presently included in Operational Budget**

Implementation Date: **Immediately**

1.3 THAT Corporate Planning review and consolidate all current rules governing the use of lethal and less lethal force to ensure that officers can quickly locate and clearly understand guidelines they are required to follow.

1.4 THAT Corporate Planning incorporate the use of colour coding when developing and publishing rules and directives.

RATIONALE

The Committee found that reference to the use of force information and guidance is distributed amongst several sources. For example, the use, training, and the reporting requirements concerning the use of firearms are found in four separate locations within two separate Service documents: the Rules binder and the Policy and Procedure Manual. This creates some difficulty locating quickly all the information necessary to be properly informed of member's responsibilities. In addition there is no clear visual

indicator distinguishing what information is crucial and what information is merely informative. Studies have revealed that if frustrated in their attempts to acquire and determine what information was crucial, members may act in ignorance and make the wrong decision.

Researcher and attorney Gordon Graham, a sergeant with the California Highway Patrol, is recognized as an authority in the development and implementation of policy. He has developed a technique that organizations can use to direct members quickly to the information that is important. This method relies on colour coding, to ensure that important policies stand out. Graham explains,

> Your police professionals are visual people. Make the important policies (high risk) stand out in your various policy manuals. Print the low risk policies (which represent most of the pages in many police manuals) on white paper. Print the high risk policies on yellow paper. Finally, identify the "high risk - low frequency" tasks in any given job description and divide these tasks into two separate headings - discretionary time and non discretionary time. Discretionary time tasks are those that allow you to think, talk to other or even look up the policy before you make the decision on how to proceed. Non discretion time policies are exactly that. Once the incident is encountered, you have little or no time to think about the course of appropriate action. The involved officer or deputy needs to act, and act quickly, doing the task correctly to avoid the aforementioned consequences. Some things in each job description are very important (high risk) encountered rarely (low frequency) and with no time to ponder what should be done (non discretionary time). The policies directing behaviour regarding these tasks need to be printed on red paper, so that they will stand out clearly from the rest as being more important to the officer and organization (Graham, 1997).

Graham asserts that policies when properly constructed, can instill confidence in employees and allow them to better perform their various jobs and assignments. Properly derived policies allow operations to be done in a systematic manner to achieve consistency.

Therefore, the Committee found value in the approach suggested by Mr. Graham.

According to Corporate Planning, the implementation of these recommendations are dependent upon a co-ordinated effort with Training and Education. Consequently, the completion date coincides with the commencement of the Crisis Resolution/Officer Safety Course. Nevertheless, preparation can begin immediately.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

1.5 THAT Professional Standards maintain the Officer Involved Shooting database designed by the Use of Force Committee.

The Committee was advised that presently Professional Standards maintains a use-of-force data base. However, there is a need to include additional information on officer involved shootings such as, subject and officer profile, nature of original call, time of day, and the environmental conditions. These factors

and others are considered necessary in order for the Service to develop appropriate training, equipment and tactics.

Total Cost:	**Presently anticipated in Operational Budget**
Implementation Date:	**Immediately**

2. SUPERVISION

2.1 THAT the Chief of Police ensure supervisory staffing levels of uniform platoons are consistent with recommendations contained within the Beyond 2000 Implementation Final Report, to ensure the availability of road supervisors within each Division or Command at all times.

RATIONALE

Between 1995 and 1997, the period of time for which the service has data, patrol sergeants had to be called out from the station six times out of 11 to attend police shootings. This represents an on-road availability rate of only 54 percent. Yet the need for adequate supervision of front line officers is beyond debate. Effective supervision provides the guidance, support and intervention necessary to enable officers to carry out their duties confidently. This is especially so in circumstances where there exists the potential for violence. According to the Beyond 2000 Final Report, 1994:

Staffing - Primary Response Supervision

> Direct supervision has been identified as a vital component of the efficient operation of the primary response function. It is necessary to ensure that immediate supervision is available at all hours of the day and night, to provide appropriate support and personnel management.
>
> The field supervisory function, staffed by sergeants, is consistent with the role defined in *Beyond 2000.* The role is one of coaching, mentoring and facilitating the work of constables in both the alternate and emergency response functions. With technological improvements in shift scheduling and deployment, the field supervisor should be available at all times, and should actually be *on the road at least 65% of their on-duty time.*
>
> The establishment of a reporting ratio between front-line uniform sergeants and constables is essential when considering the expected level of authority at which the organization wishes the constable to perform. The neighbourhood constable should be entrusted to exercise all responsibilities with discretion, sound moral and ethical judgement, and within the framework of the law.
>
> Currently there is no formal reporting ratio of constables to sergeants within the Force. The present ratio of uniform divisional sergeants to constables ranges from 1:6.9 in 21 Division to 1:11.6 in 55 Division.[2] Although considered to be within reasonable parameters, the justification for the present supervisor to constable reporting ratio is somewhat arbitrary, and lacks the necessary rationale. Supervisory personnel are simply assigned based on estimated staffing demands and availability.
>
> Research conducted on a cross-section of Canadian and American police agencies found that the uniform patrol sergeant to constable ratio ranged between 1:8 (low) to 1:10 (high).
>
> In determining the most appropriate supervisory ratio for Metropolitan Toronto, the Task

Force concluded that if one sergeant on each platoon is made responsible for all administrative functions, or if administrative responsibilities are minimized to the greatest degree possible, a span of control of up to 1:12 may be possible.

However, a 1:12 ratio would be an extreme case that may not allow supervisors to properly coach and supervise subordinate officers. Supervisors must be able to provide the necessary support needed by the officers in the field to facilitate effective problem solving, encourage constructive risk taking, creative and innovative thinking, and to access needed resources. Combined with the need to maintain adequate road supervision, these requirements suggest a supervisory ratio that best supports Neighbourhood Policing will be significantly less than 1:12.

In divisional functions such as Major Crime, where officers are responsible for complex, lengthy investigations, it may be more appropriate to reduce the span of control to ensure an adequate level of supervision, since supervision applies to the case as well as personnel management. Alternatively, for those functions that require personnel to perform repetitious, routine activities which require limited supervision, a much larger span of control may be warranted.

In general:

- The number of subordinates assigned to a supervisor shall take into account:

  (a)complexity of job;
  (b) size of unit;
  (c)philosophy of management; and,
  (d) abilities of individual supervisors and their subordinates.

No supervisor shall have more subordinates than can be overseen effectively. A minimum of two sergeants must be available for duty on each platoon at any one time. In keeping with the factors outlined above, the allocation of ten subordinates to one supervisor in the primary response function is not deemed excessive for the divisional uniform platoons. Even at this ratio, supervisors will be able to control, counsel, direct and evaluate platoon constables in a positive manner.

As previously mentioned, the role of the sergeant will expand to include the responsibility of mentoring subordinates, assisting in coaching officers in the philosophy of Neighbourhood Policing and acting as a facilitator for the necessary support needed by the constable to perform assigned tasks.

It is, therefore, recommended:

(18.2) **That primary response supervisors be assigned to platoons in accordance with an optimum ratio of one sergeant for every seven constables. In no case should this ratio exceed one sergeant for every ten constables.**

Therefore, *three sergeants per platoon* (for a total of 15 sergeants per division dedicated to supervising primary response constables) will be required to approximate the optimum supervisory ratio. Three platoon sergeants will ensure adequate supervisory coverage is available, when taking into account time spent on general administrative duties, leaves of absence, and other time off.

The Committee supports the optimum ratio of one sergeant for every seven constables, as recommended by the Beyond 2000 Final Report.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

2.2 THAT the Chief of Police ensure supervisors recognize good judgement by way of formal documentation when officers exercise restraint or minimize the use of force in violent or potentially violent situations.

RATIONALE

No one knows about the hundreds of instances when a police officer decides not to shoot. Perhaps no one cares. After all, people say, we're trained to handle such things, as if training somehow removes or dilutes our humanity - Santa Monica Police Officer (Geller and Scott: 1)

The Committee is aware that awards or recognition for meritorious service, in circumstances of potential violence, were often bestowed upon officers who reacted with force. However, it is recognized that meritorious acts include behaviour that avoids or minimizes the use of force. Consequently in keeping with the philosophy that "[t]he success of an operation will be primarily judged by the extent to which the use of force is avoided or minimized (Project Beacon)", the Committee expects supervisors to be alert to any notable activities which reflect this principle.

2.3 THAT the Chief of Police recommend to the Toronto Police Services Board that it provide appropriate remuneration for the position of "Coach Officer".

RATIONALE

In the examination of issues surrounding use of force by the Toronto Police Service, training of recruits stands out as an important element. Obviously, the formal classroom and simulation training that a recruit undergoes must be properly formulated to reflect the philosophy and direction of the Service. However, once a recruit enters the field it is imperative that these concepts are reinforced and put into practice.

In a submission to an arbitration hearing, the Toronto Police Association accurately reported on the concept of "Coach Officer":

The method of appraising probationary constables was, in the past, done in a relatively informal way. A seasoned professional was assigned a recruit and the two worked together. Essentially, the former's role was to show the probationer the ropes. Following this, when training constables were first introduced, part of their duties was supposed to involve some recruit training but this function faded.

More recently, a system that assigns a pivotal role to "coach officers" has been established. Under "The new Probationary Constable Performance Appraisal Guide", persons who wish to be Coach Officers are themselves evaluated and chosen by reference to strict criteria:

- an above average performer in the areas of enforcement;
- the desire, willingness and ability to accept the responsibility;
- completion of the Staff Development Program as contained in Directive No. 14-01, in the Policy and Procedure Manual;
- well developed written and verbal communication skills;
-

a positive attitude towards policing, including a good working relationship with Service members and the public;

- a good public image, including excellent interpersonal skills;
- the desire and ability to share expertise and knowledge with others;
- familiar with Unit Strategies/Measurements; conversant with Service Rules and Directives in the Policy and Procedure Manual.

There is also a requirement that to be considered as a Coach Officer, a constable must receive formal training and successfully complete a Coach Officer training course at C.O. Bick College which has been specifically developed to train constables wanting to be Coach Officers.

Once having been selected, Coach Officers must spend at least one year in the position. They are responsible for:

- providing direction in situations where guidance is required;
- monitoring work performance;
- providing input into work performance by completing the appraisal form;
- providing feedback on an evaluation, including recommending areas requiring further development and or training;
- discussing the probationary constable's performance with the member and the member's supervisor on an on-going basis.

It is clear that the Coach Officers are not there merely to give recruits a helping hand or point them in the right directions. On the contrary, Coach Officers are to shoulder a great deal of responsibility and their assessment can make or break a career in policing (Toronto Police Association, 1996).

In 1996, the Toronto Police Association recommended that Coach Officers receive additional remunera-

tion to compensate them for the extra duties and responsibilities they must perform. This Committee agrees.

The Committee was advised by Human Resources that approximately 110 officers are needed to perform coaching duties, based on the number of recruits the Service is hiring. The costs associated with this initiative then, are $3,469 per officer, per annum calculated at 6.5% above first class constable salary.

Total Cost: **$381,000. per annum**

Implementation Date: **Immediately**

3. TRAINING

3.1. THAT Training and Education develop and institute a mandatory Crisis Resolution/Officer Safety Course for all front line officers.

3.2 THAT Training and Education incorporate rule interpretation into the pre-course material of the Crisis Resolution/Officer Safety Course.

3.3 THAT Training and Education incorporate fear management into the Crisis Resolution/ Officer Safety Course content.

3.4 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive the Crisis Resolution/Officer Safety Course.

RATIONALE

Training can have a significant impact on all aspects of police service delivery but is of vital importance for officers facing violent confrontations that could result in the use of deadly force.

The issue of training is discussed in the *"Badge and the Bullet"* written by Peter Scharf and Arnold Binder:

> Most training focuses upon one or two isolated competencies. Shooting simulators attempt to train police officers to quickly identify threats against them. Some crisis intervention training approaches focus almost exclusively on the verbal skills useful in dealing with a limited range of disputes. If training is to be effective in reducing the aggregate number of police shootings, it must focus on multiple psychological dimensions, emphasizing those capacities that might influence police behaviour in a wide range of armed confrontations. Also, such training should be conducted in environments simulating the complex, and often bewildering conditions in which deadly force episodes usually take place (Scharf, Binder: 178).

The article suggests that training should go beyond teaching a single response to complex situations. The focus should be on training and developing *a thinking police officer* who analyzes situations and responds in the appropriate manner.

Since the publication of that study, the Committee found that police training, generally, has developed into a multi faceted approach that can provide officers with more options to handle potentially violent situations.

In its research, the Committee identified a number of issues common to many police agencies such as,

- confusion surrounding the meaning and scope of deadly force policies;
- the inadvertent emphasis in use-of-force training on the escalation of defensive tactics;
- limited options for non-forceful resolution of violent or potentially violent situations;
- officer fear;
- verbal communication and negotiation skills;

- dealing with the emotionally disturbed and mentally ill;
- police culture.

The Committee found that a number of examples of progressive police initiatives and training exist:

1. Victoria State Police - Australia

Since 1988 in Victoria State, 26 people were fatally shot by Victoria Police. In mid 1994, when the figure reached 22 fatalities, this trend became the catalyst for fundamental change to operational safety tactics and training. As a result "Project Beacon" was created to study the matter and emphasize a new philosophy that **"the success of an operation will primarily be judged by the extent to which the use of force is avoided or minimised (**Victoria Police: 3**)"** To give effect to this philosophy in responding to incidents or planned operations, which may involve a person who is armed, the following 10 principles are to apply:

- **Safety First**

The safety of police, the public and offenders or suspects is paramount.

- **Risk Assessment**

Risk assessment is to be applied to all incidents and operations.

- **Take Charge**

Effective command and control must be exercised.

- **Planned Response**

Every opportunity should be taken to convert an unplanned response into a planned operation.

- **Cordon and Containment**

Unless impractical to do so, a "cordon and containment" approach is to be adopted.

- **Avoid Confrontation**

A violent confrontation is to be avoided.

- **Avoid Force**

The use of force is to be avoided.

- **Minimum Force**

Where force cannot be avoided, only the minimum amount reasonably necessary be used.

- **Forced Entry Searches**

Forced entry searches are to be used only as a last resort.

- **Resources**

It is acceptable that the "safety first" principle may require the deployment of more resources, more complex planning and more time to complete.

A 5 day training course was implemented consisting of theory, policy and procedure, incident planning, dealing with mentally disordered persons, conflict resolution, defensive tactics, scenario training and firearms training. All front line officers (8000 officers) received this training within 3 months; and are required to follow-up every six months with another 2 day refresher course.

This approach and training was accepted by the officers because their in-put into its development was encouraged. Together with instruction delivered by trainers who had the operational experience and communication skills necessary to impart the knowledge, the program had credibility. The following enhancement of operations were also put in place:

- debriefings are held after each shooting incident to update courses and remedy any ineffective or inappropriate policies, practises or procedures;
- increased patrol supervision;
- member support mechanisms (Dr Roger Solomon, Departmental Psychologist, Washington State Police, was consulted. He structured support for members during/after traumatic incidents: *dealing with fear* and *peer support networks*);
- extensive training to deal with mentally disordered;
- balance force options and de-escalation. (Research revealed that most police training around the world promotes the use of force continuum where the choice of defence/equipment is always to be one level higher than the threat being confronted. While de-escalation is always the aim, the concept of a continuum generates the psychological perception of escalation.);
- the introduction of Oleoresin-Capsicum Spray;
- the establishment of a Use of Force Register and a Critical Incident Data Base.

Since the implementation of Project Beacon, a remarkable cultural shift in members' attitudes has been achieved. There is a strong awareness of the need to reinforce, in the minds of members, an understanding that Project Beacon is not just a plan but an ongoing approach to policing. It is clear that a significant change has occurred in the confidence and skill levels of their members in meeting the community's expectations to reduce violent incidents with minimal use of force. The most promising result of the program was the fact that during 1996 following the implementation of Project Beacon there were no *Police Shootings* (Victoria Police).

2. Metro-Dade Police Department - Florida USA

Metro-Dade Police Department has been recognized for their violence-reduction efforts. They have been very successful in reducing shootings by police, enhancing officer safety, and improving police-civilian rapport. Staff Inspector Ken Cenzura and Sergeant John Docherty were invited to Metro Dade Police Training Academy to attend a course titled: Strategies For Responding to Conflict and Violence.

This 8 hour course, compulsory for all Metro-Dade officers, is based on the philosophy and principles of Dr. Martin Luther King's quest for non-violence. The Dr. Martin Luther King Institute For Non-violence set up the course. The philosophy cuts across ethnic, cultural, and gender lines and is being taught to public school students, government employees including correctional staff, and volunteer groups - even gang members. Stated simply, the objective of the course for police officers is to offer alternatives to the use of violence during the performance of their duties. Aspects of this course include:

- adding tools for the front line officer - better verbal communication;

- dealing with conflict;
- role playing;
- domestic violence situations;
- defusing situations without the use of physical force;
- changing officer mind-set.

This particular violence reduction initiative has been operational since 1995. However, it has been coupled with other long-standing programs. Collectively their success can be measured by the response from police officers.

> Officers credit the violence-reduction training for a decrease in bloodshed on both sides of the police-adversary equation and suggest their training has helped them be more effective in crime control and more popular among those who used to criticize the Department for excessive use of Force (Geller, Scott: 339).

Proposed Crisis Resolution/Officer Safety Course

Designed to meet the needs of front-line officers (uniform constables, sergeants and staff sergeant approximately 3,000 members), the proposed Crisis Resolution/Officer-Safety Course will be a concentrated, focused version of the former 11 day Crisis Course. This course is designed to be dynamic in nature and meet the operational needs of field personnel.

Among the training topics, rule interpretation and compliance, along with all use of force options, the dynamics of officer fear, and diversity awareness will be explored. Emphasis will be placed upon the meaning of the Service's rules and, within the context of the scenario, the identification and transition from one force option to another with special emphasis on achieving an appropriate balance between de-escalation and escalation responses. As well, recognizing that officers' response to fear influences their reactions, the course will examine this phenomena and offer appropriate coping mechanisms.

The Committee learned that the mere drafting and adoption of a written rules on the use of force was insufficient if members could not understand and appreciate its meaning. According to the research, "[b]efore the enforcement of new policy, all affected members of the police force should be given adequate training in its meaning (Geller and Scott: 297)." To that end the course will devote sufficient time to ensure our members are fully conversant with the content and meaning of our rules.

Research also revealed that most police training around the world promotes the use of a force continuum where the choice of defence or equipment is always to be one level higher than the threat being confronted. While de-escalation is always the aim, the concept of a continuum generates the psychological perception of escalation. The proposed Crisis Resolution/Officer Safety Course intends to address this perception by stressing the appropriate balance.

In addition, the aspect of fear management training is important since, according to Dr. Roger Solomon, Departmental Psychologist, Washington State Police,

> Every law enforcement officer has to learn to cope with fear and vulnerability, and usually has to do so alone. For many officers talking about fear or feelings of vulnerability is

> taboo because it goes against the law enforcement image. It is crucial law enforcement personnel know how to deal with these feelings since coming face to face with one's sense of vulnerability - the nuts and bolts of critical incident trauma - is an occupational hazard (Solomon: 5).

Finally, the Committee accepted the findings of Geller and Scott: that it is difficult for police officers to know when a verbal confrontation is likely to escalate to physical violence, whether a suspect's behaviours are intended to convey respect or disrespect for the officer's authority, or how discretion needs to accommodate a suspect's idiosyncratic fears in deciding what arrest and custodial techniques to employ. However, through high quality cultural awareness training, police will improve their chances of making the proper judgements during encounters with people of different cultural traditions (Geller and Scott: 306). Consequently, Training and Education will incorporate diversity training into the program.

It is anticipated, therefore, that the course will help the Service establish versatility and flexibility needed in crisis resolution techniques. This course will provide the training to enable police officers to defuse and de-escalate potentially dangerous situations, decreasing the risk to members of the public and the Service. Recognizing the complex and cosmopolitan nature of policing in Toronto, the course content will include:

- rule interpretation;
- diversity training;
- crisis recognition;
- disengagement/tactical repositioning techniques;
- tactical communications;
- emotionally disturbed persons;
- defensive tactics skills;
- high risk vehicle stops;
- gun calls;
- building search;
- scenario based training, role playing, simulations;
- judgmental simulator training;
- firearms training;
- fear management.

This course is geared to meet the needs of the front-line uniform constables and sergeants. Allowing for 25 candidates per course, one course per week, all primary response officers will have completed this training within 3 years. The proposed hours of training are 0730 - 1730 hours at C. O. Bick College. Although scheduled for the day shift, this course affords field units the flexibility to assign personnel from the evening shift, since it runs Thursday to Monday.

The design of this course is consistent with the principles of Adult Education already in place at the C. O. Bick College. The systems based approach to training concentrates on experiential learning techniques. Simulation training will provide the learner with an

experience to draw upon when confronted with similar situations in the field. Although simulation

training will never accurately reflect the stress of the real world occurrence, it does allow the training staff the opportunity to assess the learner while they are working under approximate stress levels.

Staffing

The staffing required for this proposed course is based upon the premise that it would run separately from ongoing training at C. O. Bick College, and that the training of all front-line uniform officers would take place within a 3 year period. To attain this goal would require the placement of **1 supervisor and 9 training constables** to supplement the present staff of Training & Education.

Resources:

The following resources will be required:

Dedicated vehicles		6	(4 marked and 2 unmarked)
Fist Suits	6		
Air Shields	15		
Soft batons	15		
Simulation Pistols	10		
Mask & Throat Protectors		25	
Instructor's Clothing/Equipment			

Funding

The present budget of Training & Education cannot accommodate the implementation of this course. The cost of this training would be as follows:

ITEM	**COST**	**REQUIRED**	**TOTAL**
Supervisor	60,000	1	60,000
Constables	56,000	9	504,000
Clothing/Equipment	35,000		35,000
*Police Vehicles	30,000	6	180,000
*Fist Suits	1,200	6	7,200
*Air Shields	100	15	1,500
*Soft Batons	40	15	600
*Simunition Pistols	1,000	10	10,000
*Masks/Throat Prot.	100	25	2,500
TOTAL			**$ 816,800**

* Identifies costs associated to the start-up of the course; a one time expenditure.

Implementation

Upon the decision to implement this training, a Routine Order will be published to notify Service members of this initiative. Instructional staff will be identified and transferred to the College in co-operation with Human Resources.

If an off site training facility is acquired, training can take place at any time during the day. If C.O. Bick College is utilized, training must take place at a time that will not interfere with ongoing training commitments, particularly anticipated recruit training.

It is anticipated that the Crisis Resolution/Officer Safety Course will commence in January 1999. An ongoing evaluation process will be designed to measure the achievement of the course goals and objectives.

Total Cost: **$816,800.**

Implementation Date: **January 1999.**

3.5 THAT the Chief of Police ensure sufficient ongoing use of force training, designed to enhance officer and public safety, occurs which would feature de-escalation techniques and tactical communication in order to optimize the force alternatives available to the officer.

RATIONALE

As reported, the Committee reviewed training and educational initiatives from police services thought to be progressive. As a result, the Committee found that the annual use of force requalification training for members of our Service would benefit from an expansion in scope and duration. Presently, the training consists of practical exercises in defensive techniques and weapons, and firearms requalification. The research suggests that to sustain the knowledge delivered in the Crisis Resolution/Officer Safety Course, officers require regular reviews. This can be accomplished by incorporating the appropriate material into the mandatory annual use of force training. This development will require the dedication of an additional day of training.

As previously noted, police training currently promotes the *use of force continuum* where the choice of defence or equipment is always to be one level higher than the threat being confronted. While de-escalation is always the aim, the concept of a continuum generates the psychological perception of escalation. Therefore, the focus of this additional training is intended to feature de-escalation techniques and tactical communication in order to achieve an optimal balance in the force alternatives available to officers.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

3.6 THAT Training and Education in conjunction with the Emergency Task Force develop and deliver to members of each field platoon a training course designed to enhance the use of control, containment and disengagement tactics.

RATIONALE

It became apparent during the course of this review that members of the Emergency Task Force apply lethal force at a rate representing only a fraction of other members. There are many possible reasons for this wide disparity but there are two common beliefs which tend to explain why. Almost all situations in which the Emergency Task Force becomes involved, are controlled when they arrive. This allows a review of many potential options. Strategies include, control and containment, and if the situation deteriorates, disengagement, when feasible, in an effort to regain control without resorting to lethal force. Equally important is the high level of training supplied to all Task Force members. It is clear that the culture of the Task Force supports the successful resolution of all incidents without the application of lethal force.

It is impossible to supply all front line officers with training to the level that is mandatory for the Task Force. One alternative is to expose front line officers to the tactics employed by the Task Force. This is achievable through a program delivered at the platoon level; and the Unit Commander of the Task Force supports this initiative.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

3.7 THAT Training and Education in conjunction with the Emergency Task Force develop and deliver to specialized units a course designed to provide tactical training on the approach and handling of potentially violent situations.

RATIONALE

Toronto has experienced an increase in the number of officer involved shootings including those involving members of specialized units such as, drug squads and major crime units. A program review conducted of the Hold Up Squad recommended that the Emergency Task Force conduct training with both the Hold Up Squad and Mobile Support Services to address the effectiveness of joint operations and both officer and public safety. The training so provided was effective and enhanced the ability of all units to operate more rapidly and confidently in high risk arrest situations. This training should be continued with those officers currently involved and expanded to include all non-uniform units whose operations are likely to result in high risk arrests.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

3.8 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive training in the use of oleoresin capsicum spray.

3.9 THAT Training and Education provide mandatory training for all front line police officers, whether in uniform or plainclothes, on the use of oleoresin capsicum spray.

RATIONALE

Oleoresin capsicum has proven to be an effective and practical Less Lethal Technology for certain law enforcement applications. It is an intermediate force option that officers may utilize in lieu of punches, kicks, or use of the baton, all of which can cause serious injuries. Under certain circumstances, the use of O.C. can prevent an officer from having to escalate response to the use of firearms. Public safety, officer safety, and Service liability concerns would be more thoroughly addressed if all front line police officers are trained on the use of belt-carried O.C.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

3.10 THAT the Chief of Police require that all front line police officers, whether in uniform or plainclothes, receive training on the use of both the Casco Straight Baton and the ASP Expandable baton.

3.11 THAT Training and Education provide mandatory training for all front line police officers, whether in uniform or plainclothes, on the use of both the Casco Straight Baton and the ASP Expandable baton.

RATIONALE

All front line officers, regardless of assignment, must be provided with appropriate safety equipment. This of course includes a baton. The most effective baton for uniform is the Casco Straight Baton. The ASP Expandable Baton, however, is the only practical choice for plainclothes duty when the baton must be carried in a concealed manner.
During an officer's career, most will work at various times in both uniform and plainclothes. Often, movement between the two functions is unexpected and therefore unplanned due to operational requirements. Frequently, when an officer is assigned to plainclothes it is just not possible for the Service to provide ASP training in a timely manner. This results in some plainclothes officers performing their duties without the vital intermediate force option that an ASP would provide. Training on both batons by front line officers would help facilitate transition from uniform to plainclothes duties and vice versa. More importantly, it would enhance officer and public safety.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

3.12 THAT Training and Education, maintain an appropriate resource base of suitable professionals, including a forensic psychiatrist, to assist in the development and implementation of training.

RATIONALE

Many officers consulted during the research insisted that great benefits could be derived from access to professionals, specializing in areas of concern to the police. In particular, the Committee found that the availability of a forensic psychiatrist enhanced our Service's ability to train our officers.

In addition, the Committee believes that field officers would benefit from knowledge, directly supplied by workers and consumers within the mental health field. Their perspective will help police officers fully appreciate the impact mental illness has on a person and those close to him/her. As a result, it is anticipated officers would take a more

empathetic and confident approach to persons suffering from a mental health crisis. This interaction will also provide for ongoing dialogue between "front-line" police officers and "front-line" mental health care workers which will assist them deal with issues before they become problems.

This training, however, need not be confined to classroom settings. Field training opportunities can also provide an effective learning forum.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

4. LESS LETHAL FORCE OPTIONS[3]

Less Lethal Technology (LLT) is an area experiencing rapid growth and experimentation. Generally, this is a good thing, which hopefully will lead someday to the design and production of the "wonder weapon" that may do away with the need for the police sidearm. One must remember however, that in most cases, these devices are designed and produced for *commercial gain.* Some devices, highly touted by the manufacturer, have proven to be of little or no use under operational police conditions. Some of the reasons for this are, no doubt, the result of naiveté or a lack of understanding of the real world needs of policing. We can only hope that designers and manufacturers of LLT devices strive to understand the needs of the officer on the street and have a sincere interest in the safety of both the public and the police.

In the document attached to this report (Appendix 'A') the various less lethal weapons for police use have been described. The comparative advantages and disadvantages of each weapon, related to their potential use by the front line police responder, were discussed. In particular, the report examined the devices available in relation to their practicality, effectiveness, safety, cost, training issues, and political and legal concerns. The key issues here are ***practicality*** and ***effectiveness***. Regardless of the cost, safety, training issues or legal concerns, many new technology less lethal weapons although innovative, are impractical, ineffective, or a combination of both.

4.1 THAT the Chief of Police equip all front line uniform and plainclothes police officers, who have completed the required training, with belt-carried oleoresin capsicum spray.

RATIONALE

By the end of 1997, approximately 3000 members of the Service were equipped with belt-carried O.C. However, some front line uniform officers and many plainclothes officers are still not equipped with this tool. Oleoresin capsicum has proven to be an effective and practical LLT weapon for certain law enforcement applications. It is an intermediate force option that officers may utilize in lieu of punches, kicks, or use of the baton, all of which can cause serious injuries. Under certain circumstances, the use of O.C. can prevent an officer from having to escalate response to the use of firearms. Public safety, officer safety, and Service liability concerns would be more thoroughly addressed if all front line police officers are trained on and equipped with belt-carried O.C. The estimated cost of this recommendation is based on equipping the remaining officers (approx. 1,000).

Cost: **$51,980***
(*belt carried containers along with practice equipment)

Implementation Date: **Contingent upon approval.**

4.2. THAT the Chief of Police equip all front line uniform and plainclothes police officers, who have completed the required training, with both the Casco Straight Baton and the ASP Expandable baton.

RATIONALE

All front line officers, regardless of assignment, must be provided with appropriate safety equipment. This of course includes a baton.

The most effective baton for uniform use is the Casco Straight Baton. It offers certain advantages over the Monadnock PR-24 and the ASP Expandable Baton which have been detailed in Appendix 'A'. The ASP however, is the only practical choice for plainclothes duty when the baton must be carried in a concealed manner.

During an officer's career most will work at various times in both uniform and plainclothes. Often, movement between the two functions is unexpected and therefore unplanned due to operational requirements. Frequently, when an officer is assigned to a plainclothes assignment, it is just not possible for the Service to provide ASP training in a timely manner. This results in some plainclothes officers performing their duties without the vital intermediate force option that an ASP would provide.

Issuing both batons to front line officers would help facilitate transition from uniform to plainclothes duties and vice versa. More importantly, it would enhance officer and public safety and better address Service liability issues related to the adequacy of equipment. It is estimated that 3500 ASP expandable batons at $91.00 each including holders ($318,500), and 3500 Casco straight batons at $39.00 each including holders ($136,500), would be required.

Total Cost:	**$445.000**
Implementation Date:	**Contingent upon approval.**

4.3. THAT the Chief of Police direct that an operational pilot project be conducted to evaluate the effectiveness and practicality of equipping selected patrol vehicles with large 400 gram containers of Oleoresin Capsicum aerosol spray.

RATIONALE

Like the police baton, the belt carried units of oleoresin capsicum, have limited stand-off capability. Typically they have an effective range of 3-6 feet. This distance may be insufficient to permit the officer to disengage or select an alternative force option, if the

initial application should fail. The Committee heard from Acting Staff Sergeant Button, armaments officer and former member of the Emergency Task Force, that in some situations access to a more powerful application of oleoresin capsicum could offer an effective alternative than escalating the use of force. In this regard the Committee was advised that the larger containers can be effective up to about 20 feet.

Although the 400 gm containers are too large (10 inches tall, 2.5 inches in diameter) to be belt carried, they provide considerably increased performance over their smaller counterparts and could easily be carried within the patrol vehicle for use in certain situations. The 400 gm units also release considerably more O.C. when discharged, and they do so in a cone fogger fashion which simplifies aiming for the

operator.

While not suitable for most indoor uses because of the volume of O.C. emitted, these large containers could prove extremely valuable to the officer in an outdoor situation. Certainly, a significant number of critical encounters between police and suspects do occur outdoors. Testing has shown that cross-contamination concerns are largely unwarranted. The O.C. dissipates quite rapidly when used outdoors allowing officers to move in and take control of a suspect without excessive cross-contamination.

This pilot project would place fifty (50) 400 gm pepper spray units in selected uniform patrol vehicles throughout the Service. The project would be conducted over a one year period. One year is a reasonable amount of time to properly assess the practicality, effectiveness and overall performance of the containers in an operational setting. It would also permit evaluation of the units under the varying temperature and climatic conditions that would be encountered as the seasons change

To implement this recommendation, Training and Education intends to instruct a select number of divisional officers who will, in turn, train their patrol officers. It is expected that the training could be accomplished in 3 months, with minimal impact on the budget. The cost is based on the acquisition of 500 units of 400 gram of O.C. spray at $23.40 per unit, and 200 vehicle carrying cases at $21.60 each.

Total Cost: **$16,020.**

Date: **Contingent upon approval.**

4.4 THAT a standing committee be established within the Service to research, test and evaluate less-lethal weapons as they become available to law enforcement.

RATIONALE

A standing committee consisting of selected representatives from the Emergency Task Force, the Training & Education Unit, the Public Safety Unit and the three Field Commands should be established to research, evaluate, and test less-lethal weapons as they become available. The suggested staffing of the committee will best represent general Service concerns as well as those of specialized units. The committee will provide co-ordination and structure to LLT research and evaluation, improve communication on LLT matters between units, and prevent duplication of effort. This group would meet on a regular basis as required for discussion, testing, and evaluation of LLT weapons and would represent the Service at demonstrations of equipment by manufacturers. It would also serve as a central “clearing house” to receive information, updates, product reviews etc. from manufacturers and other law enforcement agencies.

Less-lethal technology is a growth industry, producing devices at a surprising rate. This committee would provide the best vehicle to research, test, and evaluate LLT weapons from a professional, practical and informed perspective.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

5. DEALING WITH EMOTIONALLY DISTURBED PERSONS

Continuing a trend started during the 1970s, the mental health system has increasingly emphasised community care for the emotionally disturbed. Today, fewer clients are admitted or treated in hospital or institutional settings in what has become known as *deinstitutionalization*. For example, in 1960 there were 16,000 psychiatric beds in Ontario compared to 5,282 in 1997 (Boyle, Vincent: A 8). Indeed, a further 2000 beds are expected to disappear by the year 2003 (A 8). While the intent is to reduce costs it is also to integrate patients into the community as part of an attempt to provide a broader base of support for their therapy. However, emergency response is frequently left up to the police. Unfortunately, one result is that officers are, at times, faced with persons in crisis. Under these circumstances the potential for confrontation is high, especially when the emotionally disturbed are threatening harm or otherwise present a danger to themselves or others. Nevertheless, since these incidents are relatively rare when compared to the number of patients treated in the community, deinstitutionalization is likely to remain a fact of life. Accordingly, the police must continue to develop effective non violent responses for dealing with these situations.

5.1 THAT the Unit Commander of Community Policing Support Unit establish and chair a standing committee mandated to identify, develop and co-ordinate suitable resources and responses to help the Service effectively intervene when dealing with the emotionally disturbed.

RATIONALE

The Committee has studied the manner in which the Toronto Police Service and mental health providers respond to the emotionally disturbed. At present, a variety of combined and independent initiatives exist. However, because they are not co-ordinated, effective initiatives may not be instituted city wide. For example, in 14 Division, mental health care workers from Queen Street Mental Health Centre are often available to attend with an officer when a patient is exhibiting potentially harmful behaviour. Elsewhere in Toronto, however, the police are left to respond alone. In 41 Division, Scarborough General Hospital and the local police developed a procedure that helps speed up admissions while other areas of the city enjoy no such arrangement. Therefore, it is the opinion of the Use of Force Committee that one core group, established to identify, develop and co-ordinate responses and resources will promote more effective intervention by the Service.

This group should include police officers from the various commands including the Emergency Task Force, Training and Education, Victim Services and the Community Policing Support Unit. It should also include members of the Metro Integrated

Community Mental Health Crisis Response Unit, representatives from emergency and psychiatric departments of Toronto hospitals, and a representative from the Ministry of The Solicitor General and Correctional Services. It should report to and co-ordinate its efforts with the *Review of Deadly Force Committee* (see recommendation # 7.1) The group may wish to consider some of the following programs, established in other jurisdictions, as a basis for their research:

Vancouver British Columbia

This program pairs a police officer with a mental health nurse in a mobile unit (*Car 87*), to provide preventative intervention and respond to calls for persons in crisis. It is available 5 days a week from 1700 to 0300 hours and there is a 24 hour crisis line. In most cases, however, emergency calls are answered by tactical units.

Fairfax, Virginia

In addition to a 24 hour a day phone consultation service, police officers, after transporting an emotionally disturbed person to the hospital, have available a mental health nurse between the hours of 0800 and 2400 who can attend so they can return to patrol duties.

Birmingham, Alabama

Six civilian Community Service Officers (CSO) operate out of police headquarters 7 days a week from 0800 to 2300. After hours they are available on-call. They provide assistance; and at times take charge so that officers can return to their patrol. Often they are able to streamline the admission process because of their familiarity with hospital procedures. If violence is anticipated the CSO is accompanied by a police officer.

St. Thomas Ontario

The team consists of police officers and counsellors of the *Crisis Team* based at the St. Thomas Psychiatric Hospital. The team is equipped with a dedicated phone line for consultation, physician back-up, outpatient follow-up (4 to 6 weeks) and short stay admission authority if hospitalization is necessary.

To call out the team, patrol officers first determine if the mental health crisis requires the expertise of a crisis nurse. Over the phone the officer discusses whether a counsellor is needed on site. If so, a crisis nurse will be dispatched or transported by the police.

The officer will remain with the nurse to keep the peace but the nurse provides initial assessment and intervention. The nurse can link the person in distress with community resources or recommend admittance to the hospital for further assessment. The team's objectives are:

- To assist the police officer in dealing with crises having mental health implications in the community.
- To provide screening and social and clinical assessments of individuals thought to be mentally ill and or in need of emergency intervention in the community.
- To contain the crisis and prevent escalation that could result in harm and possible criminal charges.
- To link with appropriate community resources for follow-up.

Los Angeles, California

A *Mental Evaluation Unit* (MEU) is staffed 24 hours a day by nine detectives who are available to screen and, if appropriate, transport mentally ill persons. In the first instance, a patrol officer attends the call for service then contacts the MEU. Mental Evaluation Unit detectives may attend at the radio call or

meet the officer and the subject at the MEU offices. The detectives are authorized to refer the subject to a hospital emergency ward for admission by a psychiatrist. One understanding in existence stipulates that no subject referred by the police can be refused admission based on lack of bed space.

Washtenaw County, Michigan

Sheriff's deputies have 24 hour a day access to a telephone consultation service and an on-site crises intervention team. When the situation is volatile, the centre dispatches two staff members to assist the deputies. If the responding clinician believes admission is necessary, they advise the psychiatric facility and arrange an evaluation. Also, within 72 hours, the police are advised of the assistance provided to the subject. Finally, deputies have been issued wallet cards that list suggested steps to follow when dealing with the emotionally disturbed.

London, Ontario

The *Family Consultants Service* (FCS) operates out of headquarters seven days a week: 09:00 to 04:00 during week days and 12:00 to 04:00 on weekends. A uniform officer attends first and decides if there is a need to involve the FCS. If so a consultant attends and assists.

The philosophy and goals of this initiative are:

- Assist officers by providing immediate assessment and intervention of crisis situations and supplying information about or arranging referrals to appropriate community resources.
- Aid in the prevention of serious social and or emotional dysfunction through early detection and intervention.
- Facilitate increased understanding and co-operation between mental health and law enforcement professionals.
- Increase community awareness of the social role of the police force.
- Provide a model of human services to other communities through careful documentation and evaluation.
- Provide informal in-service and field training for police officers in the area of crisis intervention.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

5.2 THAT the Community Policing Support Unit establish partnerships with mental health care agencies to promote public awareness regarding available support for the emotionally disturbed and their families.

RATIONALE

Currently, Toronto Police have found it effective to respond to potentially violent situations, involving the emotionally disturbed, by dispatching Emergency Task Force response units, whenever possible. The tactics employed include, control and containment, and if the situation deteriorates, disengagement, when feasible, in an effort to regain control without resorting to lethal force.. While specific police emergency responses are available to address some crises, longer term strategies in partnership with the community are needed.

By establishing partnerships with the various services available to the public for the care of the emotionally disturbed, the Service may be able to help clients identify and obtain the assistance and support they need at the earliest opportunity. For example, a list of resources, supplied by the attending officer, may help the parents of a schizophrenic child, refusing to take his/her medication, obtain assistance from the Schizophrenic Society of Ontario or the Crisis Response Program **before** the situation becomes critical. Therefore, by helping clients gain early access to support from within the mental health care system, the Service may reduce the need for emergency police intervention.

As noted previously in the report, the Committee believes that field officers would benefit from knowledge, directly supplied by workers and consumers within the mental health field. Their perspective will help police officers fully appreciate the impact mental illness has on victims and those close to them. As a result, it is anticipated officers would take a more empathetic and confident approach to persons suffering from a mental health crisis. This interaction will also provide for ongoing dialogue between "front-line" police officers and "front-line" mental health care workers which will assist them deal with issues before they become problems.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

5.3 THAT the Community Policing Support Unit co-ordinate the completion of the proposed handbook dealing with officer response to mental illness.

RATIONALE

After the Lester Donaldson Inquest in 1994, the *Emergency Task Force Community Advisory Committee* was established to address some of the jury recommendations. The Committee included members of the Toronto Police Emergency Task Force, and representatives from the Clarke Institute of Psychiatry, several mental health care agencies, and hospitals. Pursuant to recommendation # 61, the Committee undertook to create an information package, in the form of a handbook, to be distributed to all uniform members of the Service.

The final product will provide police officers with valuable information about mental illness and suggestions on how to respond to persons who are emotionally disturbed. It will also refer officers to agencies available to assist the emotionally disturbed and their families. The Community Policing Support Unit estimated that to reach the target audience, 10, 000 copies of the booklet would be required.

Total cost: **$3,000.**

Implementation Date: **January 1999**

6. EMERGENCY TASK FORCE SPECIAL WEAPONS TEAMS

6.1 THAT the Emergency Task Force continue the Deployment Strategy outlined in the unit memo of 97.05.22 which directs units to patrol each of the Field Commands.

RATIONALE

The Emergency Task Force (ETF) deploys their *Special Weapons Teams* in three vehicles. In May of 1997 the Unit Commander directed that each of the three units patrol one of the Field Command areas and clear with the dispatcher while available. In addition, members were instructed to move towards any call where their services might be required without waiting to be directed by the radio dispatcher. Since this time, units have been assisting in a greater number of calls and in so doing have brought their wealth of experience and training to bear on a larger number of potentially volatile situations. To quantify the success of this initiative is virtually impossible but a reasonable conclusion can be drawn that the presence of members of this unit instills a higher level of confidence in most officers. It heightens their awareness of one more resource available to address the problem they are facing. The current unit commander has entrenched this deployment strategy as unit policy and it should continue as an operational requirement (Appendix 'B').

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

6.2 THAT the Chief of Police authorize an increase in staff of the Emergency Task Force to allow for an additional Special Weapons Team.

RATIONALE

It is recognized that the skills and training possessed by the experienced ETF officer are a significant part of the Service's ability to diffuse volatile situations without the use of lethal force. While this report recommends enhanced training by ETF officers to selected members of the Service, it is accepted that most situations require a full Special Weapons Team to properly conclude them. With the decentralized deployment strategy currently in place a broader range of calls are being attended and in a timely fashion. There is, however, a requirement that this Service maintain a full team response capability at all times. In order to enhance the ability of the Task Force to do this, the strength of the unit

should be increased to accommodate one more Special Weapons Team. This would allow the unit commander to cover, more effectively, the peak periods and provide an additional team in each field command. The estimated costs associated with this recommendation are based on the need for an additional Sergeant and eight (8) Constables ($482,328), along with appropriate equipment ($45,000) ,

and 3 vehicles ($90,000):

Total Cost:	**$617,328**
Implementation Date:	**Contingent upon approval**

7. GENERAL

7.1 THAT the Chief of Police establish a standing Review of Deadly Force Committee to review all Use of Force initiatives, rules, technology and training and explore new innovations.

RATIONALE

To ensure the continued support for the initiatives identified in this report, it is essential that a guiding body assume responsibility for their development and implementation. It is suggested that the *Review of Deadly Force Committee* consist of the chair of the current Committee, Staff Inspector Ken Cenzura, Detective Support Command, and representatives from Training and Education, the Emergency Task Force, Corporate Planning, Community Policing Support Unit, and the Field Commands.

In addition, this committee would be tasked with continuing to explore innovative ways to address the issues surrounding police use of force. For example, during the review, the Service had the good fortune to be approached by the Queen Street Mental Health Centre (QSMHC) with a suggestion that a partnership be developed to explore areas of mutual concern regarding police response to the emotionally disturbed. One of the initiatives developed was the presentation of a theatrical play, produced and performed by members of the *Workman's Theatre Project*, which is affiliated with the QSMHC. This play explored the fatal shooting of a schizophrenic man by the police. It examined the issues from the perspective of the family of the subject, and the police officer. The play did not take a simplistic or doctrinaire position but exposed the tragedy in all its dimensions. It did not lay blame. A feature of the production was a post performance panel discussion designed to encourage healthy dialogue. One of the performances was conducted at police headquarters in August 1997. It was universally praised by the participants and the audience as an excellent vehicle for promoting better understanding between the police and the community. While this particular production, unfortunately, could not be continued, the premise has great potential as an educational tool for members of the Service and the community.

Other areas this committee may wish to consider include, implementing platoon training on the Service's *non discretionary time* policies based on the model developed by Gordon Graham.

> Non discretion time policies are exactly that. Once the incident is encountered, you have little or no time to think about the course of appropriate action. The involved officer or deputy needs to act, and act quickly, doing the task correctly to avoid the aforementioned consequences. Some things in each job description are very important (high risk) encountered rarely (low frequency) and with no time to ponder what should be done (non discretionary time) (Graham, December 1, 1997).

This initiative involves regularly instructing platoon members, then randomly testing their knowledge. Graham goes on to explain:

> The key to achieving your goal of "PROPER CONDUCT" is identifying and training for the low frequency, high risk tasks. One such systematic approach is **SROVT**, Solid Realistic, Ongoing, Verifiable, Training... On going means once a week at least 5-10 minutes. Verifiable means making sure you know the law (if any), the Department policy and appropriate techniques prior to your involvement in the incident (Graham, Decem-

ber 1, 1997).

Finally, the committee may wish to consider implementing the recommendations as a consolidated program, complete with a promotional symbol designed to develop the necessary commitment to its success within the Service and the community. The Victoria Police Service in Australia implemented their recommendations under the designation, Project Beacon, accompanied by a corporate logo, that symbolized the program's philosophy. Similarly, Toronto Police could adopt the name and emblem developed by Detective Constables Tracey Marshall and Edward Boyd of the Sexual Assault Squad. They suggested the acronym ERA, which stands for *Evaluate Response Options*, as the project title and slogan that best describes the thoughtful approach to police use of force we want our officers to adopt. To help reinforce the training, it was suggested that students be issued T-shirts with the logo displayed on the front as a visual reminder of the program's principles. To coincide with the commencement of training, the Service should anticipate acquiring the T-shirts by January 1999. The estimated cost of this initiative is based on acquiring sufficient T-shirts for the number of officers expected to be trained (3000 T-shirts at $7.00 each).

Total Cost: $21,000

Implementation Date: January 1999.

7.2 THAT the Chair of the Review of Deadly Force Committee in conjunction with Corporate Communications ensure the public is kept informed of the development and implementation of the recommendations contained within this report.

RATIONALE

Of paramount importance to any committee work is the need to keep the public informed of its progress. By working with Corporate Communications, the chair of the *Review of Deadly Force Committee* can ensure that the Service's commitment to officer and

community safety is clearly conveyed to the public. A public fully informed, is then in a better position to appreciate and support our efforts to reduce the potential for violence during police - citizen encounters.

Total Cost: **Presently anticipated in Operational Budget**

Implementation Date: **Immediately**

USE OF FORCE COMMITTEE

Final Report

Conclusion

In May, 1997, the Chief of Police, David Boothby, established a committee to review all aspects of police use of force. The mandate of the Committee was "to examine if there are ways to reduce the necessity for the application of deadly force, without compromising officer safety, and to communicate findings to the public (MTP Media Release, 97.06.16)."

The Committee conducted extensive research into this topic by consulting widely within our Service; with other police services in Canada, the United States, and Australia; and with community agencies, medical centres; and educational institutions and research centres. Further research was conducted by obtaining and reviewing the literature, academic studies, and institutional policies related to the use of deadly force, less lethal weapons, and dealing with emotionally disturbed persons.

A broad spectrum of issues was identified including the nature and availability of rules and directives, training and equipment, Service resources and support, community and professional resources and support, and reliable internal information and data. The issues were considered in the context of available, practical alternatives to police use of force and, particularly, the use of deadly force.

Consequently, the Committee undertook to respond to the following six areas which became the Committee's *terms of reference*.

1. Development of and Compliance with Rules & Directives.
2. Supervision.
3. Development and Implementation of Appropriate Training.
4. Identification of Less Lethal Force Options.
5. Dealing with Emotionally Disturbed Persons.
6. Expansion of Emergency Task Force Special Weapons Teams.

The Committee worked from May 1997 to March 1998. It found that experiences faced by our organization, in relation to officer involved shootings, mirror those of other law enforcement agencies and therefore validate the research and research methods of the Committee. Consequently, to address the findings, 31 recommendations, grouped

according to the Terms of Reference, are proposed. The Committee is of the view that some of the recommendations can be implemented immediately with minimal impact on the operating budget. The remaining recommendations have financial implications totalling $2.39 million, which may affect scheduling.

It was evident to all members of the Committee that the subject of police use of force is of significant concern to police and their communities, world wide. Throughout the review, the Committee received much encouragement and support for its efforts. As a result, following ten months of research and

development, the Committee is convinced that if implemented, these recommendations will enhance officer and community safety, and promote public confidence in our Service.

[1] It was not considered necessary to respond to every aspect of an issue with a specific recommendation. Rather, the recommendations were written broadly enough to encompass the findings and allow for a considerable degree of flexibility in response.

[2] Taken from M.T.P. organizational structure by rank and permanent assignment for period ending October 31, 1994.

[3] For more detailed information please refer to Appendix 'A'

LESS-LETHAL

FORCE TECHNOLOGY

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ACTING STAFF SERGEANT
TACTICAL TRAINING SECTION
TRAINING & EDUCATION UNIT

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EXECUTIVE SUMMARY

The use of force by police is an issue that inevitably attracts attention from the community, the media, politicians and activists. **When the force used results in death, the police come under particularly close scrutiny.**

During May of 1997, Chief David Boothby ordered the establishment of a committee to review and study all aspects of police use of force. Staff Inspector Ken Cenzura was named chair. The committee was comprised of representatives of field and specialized units from across the Service. **Its mandate was to identify and investigate all possible strategies or methods that might contribute to the reduction of the use of force, and in particular, the use of deadly force by police.**

One area identified initially was the subject of less-lethal technology weapons. This has been an especially controversial subject lately, with both the media and many citizens asking why the police don't use ***less-lethal weapons*** in certain situations ***instead of firearms.*** A/Staff Sergeant Peter Button, the Service's Armament Officer was tasked with researching the topic of less-lethal weapons and preparing this report.

A/S/Sgt. Button reviewed **Officer Involved Shooting Reports, Use of Force Reports, Firearm Discharge Reports and first hand accounts of critical situations where force was used.** The requirement to provide ***the***

front line responder with less-lethal technology weapons was identified as a **prime need.** Weapon evaluation therefore, was conducted primarily from the perspective **of the usefulness of the tool to the police constable or sergeant who initially responds to an incident.**

The comparative **advantages** and **disadvantages** of each weapon were studied. In particular, the **practicality, effectiveness, safety, cost, training issues, and political or legal concerns** relating to each device were examined.

A comprehensive study was conducted which utilized a wide variety of both human and reference resources. Police and scientific experts in the field from the United States, England, Australia and Canada, including many within our own Service were consulted. **Manufacturers** of less-lethal technology weapons provided assistance. Numerous **books and articles** on the subject were researched. **Metro Toronto Police experience with LLT weapons already in Service use such as oleoresin capsicum (pepper spray) and tear gas was reviewed.** Where possible, **LLT weapons were tested first hand by personnel from the Training & Education Unit, the Emergency Task Force or the Public Safety Unit.**

This report's conclusion is that there is presently no less-lethal weapon available to the Service that can replace the police firearm in certain life and death encounters. Many new and innovative less-lethal weapons such

as impact projectile launchers, capture nets and electronic stun devices were determined to be **impractical, ineffective or a combination of both.**

On a positive note, it is quite clear that some conventional devices already in Service use such as batons or pepper spray ***are useful in less deadly situations, and can in fact sometimes prevent an officer having to escalate to deadly force.***

Consequently, this report's four recommendations emphasize *the continued but expanded use of certain conventional less-lethal weapons* while continuing to *proactively test and evaluate new technology* for possible future Service adoption.

The report's detailed recommendations appear beginning on page 68.

TERMINOLOGY

A variety of weapons other than firearms are used by police agencies worldwide. These various devices are often referred to as ***non-lethal*** or ***less than lethal*** devices. For example, an officer's baton or the various rubber bullet projectile launchers are usually thought of as ***less than lethal*** force options. This terminology can be misleading. The use of both the baton and rubber bullets by police have resulted in the death of individuals. Indeed, under certain circumstances, the use of virtually any force option can result in serious injury or death.

It can be seen then that the terms ***non-lethal*** or ***less than lethal*** are not entirely accurate when referring to many of these devices. It is vital that both our officers and the public be exposed to terminology that clearly defines just what these devices are. In the interests of both safety and liability, police officers in particular must understand that ***the inappropriate use or misuse of these devices can result in death.***

Therefore, this report will refer to such devices as ***LESS-LETHAL*** or ***LOW LETHALITY TECHNOLOGY (LLT)*** throughout. These are terms that are rapidly gaining acceptance by the law enforcement community abroad. It is hoped that our Service will follow suit.

THE IDEAL LESS-LETHAL WEAPON

Unfortunately, the ideal less-lethal weapon for police use does not exist. If it did, it would have the capabilities of the "phaser" or "ray gun" of science fiction lore. A "phaser," set on "stun," could be used by an officer at a safe distance to temporarily incapacitate a violent suspect in order to safely approach, disarm the person and apply a restraint. Such a weapon could theoretically render the police sidearm obsolete. An article in the Journal of Contemporary Criminal Justice had this to say,

There is no LTL technology in the experimental stage, on the drawing board, or on the horizon which shows any promise of making the police revolver superfluous. While each LTL device is useful at some point, under certain conditions, they all have significant operational limitations. All have characteristics which make them unsafe, impractical, and unsuitable for the multitude and variety of situations and tasks in which there is the potential for lethal consequences in a confrontation between an antagonist and an officer - a sobering reality which makes police firearms indispensable. (Geis and Binder, 1990:6).

What are the effects then, of a successful, or "perfect" less-lethal weapon? One definition by Ken Peak, writing in the Journal of Contemporary Criminal Justice said this,

...there is only a temporary effect and minimal medical implications to normally healthy subjects; there is a high probability of

instantaneous control over a highly motivated suspect; and there are observable effects, with a high probability of affecting only the intended targets. (Peak, 1990, 9)

This is an excellent inventory of the effects of a successful less-lethal weapon that calls for a closer examination.

DESIRED EFFECTS OF THE IDEAL LLT

1.Temporary

The incapacitating effect caused by the device **must last only temporarily.** This is the very essence of the LLT weapon. Although the effect must not be lasting, **it must allow adequate time for an officer to safely make a close in approach, restrain and apprehend the individual.**

2. Minimal Medical Implications

The probability of the device causing serious injury or death must be very low. Some temporary minor injury resulting from the use of a device is probably inevitable given the current state of available technology. This is nothing new. The police baton is a traditional less-lethal weapon generally accepted by both the police and the public. Any time a baton is used however, some injury will likely result. It may only be a minor bruise, but it is an injury nonetheless.

The new technology creates its own medical implications. The use of a TASER may cause an individual to collapse, hitting the ground with sufficient force to cause bruising or in some extreme cases fracture bones. Its use also requires that a medical professional remove the barbed darts from the subject's skin. Use of the TASER to subdue an individual with a cardiac condition could be fatal.

Projectile launching devices ("rubber bullet guns") can break bones and cause internal injuries even when properly used. Under extreme circumstances where there is no alternative, such injuries and the resulting medical implications may be acceptable. **Generally however, any LLT device that is to be seriously considered for Service wide adoption should have only a small requirement for any post use medical treament other than perhaps a precautionary medical examination.**

3. High Probability Of Instantaneous Control

Many of the potentially deadly attacks on police officers are dynamic, occur spontaneously and cannot be anticipated by the officer. They occur at close range, under less than ideal conditions which may include poor lighting and unsure footing. Cover is often not available and the luxury of time and distance is absent. **Under these circumstances, any LLT option selected by the officer must have a high probability of instantly incapacitating the suspect.** The device must stop the threat immediately,
causing suspect incapacitation to a degree that the officer is at least able to disengage

and create time and distance.

At present the only tool that an officer can usually rely upon to cause immediate incapacitation is the sidearm. Some highly touted LLT devices have operational failure rates approaching 40%. That is, they fail to immediately incapacitate subjects in forty situations out of every one hundred in which they are used. More about these devices and the reasons they fail to incapacitate later.

It is unrealistic and morally wrong to expect police officers to "experiment" with LLT devices that may or may not cause immediate incapacitation to a suspect in a close range life threatening situation. Under these circumstances, failure of the device could cost the officer or another innocent party their life.

The ideal LLT weapon must have the capability to instantly and reliably stop a threat if we expect officers to use it in close range, dangerous situations.

4. Effective On The Highly Motivated

The ideal LLT weapon would be effective when used upon violent, goal oriented, determined subjects. It would also be effective when used against those persons whose pain threshold is high because of psychosis

or because they are under the influence of alcohol or drugs. Many failures of current LLT weapons such as the TASER and the various oleoresin capsicum sprays have been attributed to drug and/or alcohol use by subjects.

5. Observable Effects

The ideal LLT weapon will produce observable effects that confirm the device/ agent has been properly employed/applied. An obvious example of this is the reddish orange colouration of the majority of O.C. sprays. This colouring of the O.C. provides immediate confirmation that the subject's facial area has been sprayed which

is required for the product to be effective. Additionally, the subject's reactions which may include involuntary closing or spasmodic contractions of the eyes, gasping for breath, gagging etc. are observable effects that confirm to the user that the product is having the desired incapacitating effect.

6. Ideally Affect Only The Intended

The ideal LLT weapon will be capable of being accurately applied to a subject without causing any injury or effect upon other persons or police officers in the area. Additionally, collateral property damage and/or cleanup would be minimal.

An example of LLT weapons that fall short in this area are the airborne chemical agents such as CN and CS teargas. Although they can be extremely effective in inducing a subject to surrender, they often permeate an area afflicting officers and other persons not targeted. Protective respiratory equipment and clothing for officers using the agents is necessary because of this. Also, cleanup of the agent when used indoors can be both time consuming and laborious. In extreme cases, the agents can destroy or render unusable property such as foodstuffs.

FACTS TO CONSIDER

When evaluating the usefulness or suitability of LLT devices a number of issues must be examined. The seven main facts to consider are:

* What Are Our Needs?

* Device Practicality

* Device Effectiveness

* Safety

* Cost

* Training Issues

* Political and Legal Concerns

***What Are Our Needs?**

In order to assess our needs it is necessary to look to several sources of information. As a matter of course we carefully analyse **incidents in which officers resorted to deadly force,** but it is just as important to examine **incidents where deadly force was avoided and try to determine *how it was avoided.***

Sources studied for this report include **Homicide Squad - Officer Involved Shooting Reports, Use of Force Reports, Firearm Discharge Reports and numerous interviews with officers involved in critical situations requiring the use of force.**

These sources reveal that the Metropolitan Toronto Police Service has an excellent record satisfactorily resolving "controlled" situations. **Controlled situations are those that permit the establishment of containment, time for tactical planning and allow a safe stand-off distance.**

Typically, these situations are dealt with by the Emergency Task Force (ETF). This highly trained special unit possesses the tools and the team structure to resolve these controlled situations using a minimum of force. Included in their armoury are a multitude of LLT weapons that include teargas, oleoresin capsicum sprays, projectile launchers and special protective equipment. **It is important to note that the ETF is able to effectively use these devices because of the *amount of training undertaken*** (30% of an ETF officer's time is devoted to training) **and the *drilled tactics they employ as a team.***

The ETF is presently equipped with appropriate LLT equipment to permit its members to resolve situations using an absolute minimum of force. The Unit's enviable track record resolving critical incidents, often using LLT weapons is proof of this.

It is clear that what the Service needs is an effective LLT weapon that may be carried and utilized by the front line police responder. It is, after all, the uniform

police constable or sergeant who most often deals with the unknown or uncontrolled situation. By virtue of being the first responder, it is these officers who are most often the victims of unanticipated dangerous attacks where tactical planning is not possible and time and distance are at a premium. ***Our research and evaluation of LLT weapons must focus on the needs of the front line responder.***

*Device Practicality

The **practicality of any LLT device will ultimately determine how useful it is** to those who use it.

Ideally, the device should be **compact enough** and **light enough** to be **carried at all times on the officer's duty belt.** When carried on the belt it must not impede an officer's ability to move freely. The need to carry the

device on the belt is particularly important considering the fact that the officer can not usually anticipate when he/she will need it.

If the device cannot be worn on the belt then it will have to **be carried within the patrol vehicle and may not be available to the officer when needed.** Worse still, particularly large and cumbersome LLT devices such as the sticky foam gun and some net capture devices would have to be transported to the scene of a situation and therefore would be of no use to the officer involved in a spontaneous and unanticipated attack. Contrary to what the manufacturers of these devices would have us believe, **it is just not practical for an officer to routinely carry a 32 pound sticky foam gun or a net launching device the size of a large rifle.**

Another consideration is the number of officers required to operate the device. Ideally, a single officer should be capable of utilizing it, however, **any use of a LLT device in a life threatening scenario should be backed up by an officer with firearm at the ready in the event the device proves ineffective.**

How is the LLT device affected by environmental conditions? **Wind and rain for example can substantially reduce the effectiveness of O.C. and chemical sprays. Heavy or layered clothing** worn in colder climates **can insulate a suspect from the effects of electronic stun devices and impact projectile launchers.** Some devices such as **"crowd control" sized O.C.**

aerosols can be very effective when used outdoors but can be overkill in confined indoor environments.

*Device Effectiveness

The device should **immediately incapacitate a subject** and its effects **last long enough to apply physical restraints such as handcuffs.**

It must **work consistently** and should **be effective against even those persons whose pain threshold is high due to drug/alcohol use or psychosis.**

The device should permit adequate stand-off distance against those persons armed with edged weapons, clubs or other non-firearm weapons. **Ideally, the device should permit a stand-off distance of at least 21 feet.** This is of vital importance in order that officers are not forced to approach a subject too closely to use the device. ***Having to do so unnecessarily places an officer in danger and can agitate a subject causing the situation to escalate.***

*Safety

The device **must be safe to use on a normally healthy subject.** It must not under normal conditions cause significant injury and **must have a very low probability of causing death even when misused.**

It must **operate consistently** and **reliably.**

Retention of the device is also an issue. In the event a suspect attempts to grab the device from the officer, **the design must allow the officer to safely retain it.**

Use of the device, even on a frequent basis, **must not pose any short term or long term health risks to the officer.**

*Cost

What are the **initial costs to purchase** the LLT devices and **train our personnel to use them?** How frequently will the device **require maintenance** or **replacement** due to operational wear? Some munitions such as tear gas have a "shelf life" and must be replaced after a period of time if unused.

It is often stated that you cannot place a pricetag on human life. This is a truism. However, any LLT device chosen for use by the Service must be reality based.

Reality in 1997 is that there is no extra money, no large untapped budget set aside for the purchase of new equipment. **Any LLT device selected must be both economical and cost effective.**

*Training Issues

The selection of any appropriate LLT device **must consider the training issues related to the piece of equipment.** Is the device **simple to use?** Hopefully, it should be no more complicated to utilize than the officer's sidearm. **Devices that are overly complicated or require a great deal of skill to operate safely are not practical because of the extensive training that is required.**

Even the simplest LLT weapons will require some training. The amount of training necessary to **initially qualify officers to use it will depend upon the individual de-**

vice. How often will refresher training be necessary? Will all personnel be equipped with the device and receive the training or only a specific group such as front line supervisors? Even if some personnel are not equipped with the device they will still require some training in order to familiarize them with its operation, capabilities, dangers etc.

If a decision is made to adopt new LLT devices **the training must be sufficiently comprehensive to address the primary requirements of officer and public safety and it must protect the Service where possible from legal liability.**

Training programs will have to be established and the actual training take place as quickly as possible so that sufficient numbers of the devices hit the street where they may hopefully make a difference. **This could be a major undertaking considering the size of the Service.**

Finally, the cost of training in both dollars and time must be considered. In fact, **the training costs will likely be substantially greater than the purchase of the devices themselves.**

*Political and Legal Concerns

Any LLT device selected must be **acceptable to both the public and the officers who are expected to employ it.** This will depend a great deal upon the **device's effectiveness and it being perceived as a humane instrument.** It will also depend greatly upon the manner in which the instrument is **"marketed"** to both groups.

Both the public and the police wish for an instrument to reduce the need for police officers to use deadly force, or force that is likely to cause serious injury to an individual. The police, however, have a vested personal interest that ***their own safety not be unduly jeopardized when using the tool.*** Although a police officer's duty is to protect the public, that same officer most certainly has a right to self-protection. **The device must be popular (read *effective* and *confidence inspiring*) with the officer**

on the street if it is expected to be used.

Legally speaking, legislation **may have to be enacted,** or **existing legislation amended** to permit the use of certain LLT devices. For example, the **Police Services Act would likely have to be amended to permit the use of a device such as the Taser or stun gun.** Provincial Standards and our own Service Policy governing training issues and operational use of any new LLT device would have to be developed.

Police use of force is certainly a common source of legal liability for both the Service and the individual officer. **The liability issues associated with LLT weapons and their use by police must be understood**. A book dealing with police use of deadly force had this to say,

> **A prime source of legal (and political) liability would be a weapon that, used *properly*, caused more harm than it was designed to, either because of design problems or because the victim proved to be unusually susceptible.....Liability might also arise from (1) the near certainty that less-than-lethal weapons will be used much more often than *lethal* weapons, resulting in more frequent, lower-level damage awards, which in the aggregate could total nearly as much as larger judgments in fewer cases of improper use of *deadly* force; (2) the possibility that serious, *permanent* injuries produced by a less-than-lethal weapon will obligate the department and/or the officer to pay disability compensation that rivals or even exceeds what might be awarded in the case of an improper *fatal* use of force; and (3) workers' compensation suits by officers who were injured because of the failure of a less-than-lethal weapon to function in accordance with their agency's representations. (Geller and Scott, 1992, 363)**

The political and legal issues affecting the use of LLT weapons by police are complex. ***It must be understood that the use of these devices where possible, in lieu of deadly force, does not automatically guarantee increased public support or reduced liability.***

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In the foregoing pages the seven main **"Facts to Consider"** have been detailed. While it is recognized that there are other issues relevant to the evaluation and selection of

LLT weapons, ***the advantages and disadvantages of a particular device must be determined in relation to these seven main "Facts to Consider".***

METHODOLOGY

This report was researched and prepared by utilizing a variety of both human and reference resources. Knowledgeable and experienced police officers, many of whom are considered experts in the field of LLT **were consulted.** Some of these officers are **members of our own Service,** many represent **police agencies in the United States, England, Australia and other areas of Canada. Experts** in the LLT field from both the **Canadian Police Research Centre** in Ottawa and the **National Institute of Justice** in the United States were consulted. **Manufacturers of LLT weapons** were contacted and provided assistance.

Numerous **books and articles** dealing with LLT weapons, police training, police use of deadly force and liability **were researched. Metro Toronto Police experience** with LLT weapons already in Service use such as pepper spray and tear gas **was re-**

viewed. Testing and **in service experience with LLT weapons by other law enforcement agencies was examined. Where possible, LLT weapons were tested first hand by personnel from the Training & Education Unit, the Emergency Task Force or the Public Safety Unit.**

A/S/Sgt. Button also took into account his own experiences. He has been a police officer for over twenty-two years. He was assigned to the Metropolitan Toronto Police Emergency Task Force (ETF) for seven years.

During his service with the ETF, he was the sergeant in charge of several special weapons teams and actively participated in the resolution of numerous critical incidents. These incidents involved both armed subjects and/or violent emotionally disturbed persons. Many of the incidents were resolved successfully by using LLT weapons including impact weapons, tear gas, oleoresin capsicum and projectile launchers such as the ARWEN 37.

Peter Button spent one and a half years in charge of the ETF training section. One of

his duties as the training sergeant included research and evaluation of LLT weapons for police use.

He is presently the Armament Officer for our Service, a position he has held for four years. In his capacity as the Armament Officer he has continued to research and evaluate LLT weapons for possible use by the Service.

He has received negotiation training at the Canadian Police College and counter sniper training with the Federal Bureau of Investigation. He holds instructor ratings on all Service firearms and has received instructor training on LLT weapons including oleoresin capsicum and tear gas.

Finally, in order to prepare this document, **A/S/Sgt. Button studied Officer Involved Shooting Reports, Use of Force Reports, and Firearm Discharge Reports.** Additionally, **he has personally interviewed numerous officers involved in critical situations where force, including deadly force was used.**

CURRENT LESS-LETHAL WEAPONS

For discussion purposes LLT weapons available to the police may be placed into six main categories. They are:

1. *Impact Weapons*

2. *Oleoresin Capsicum*

3. *Electronic Stun Devices*

4. *Tear Gas*

5. *Projectile Launchers*

6. *Other Devices*

Impact Weapons

Description:

Impact weapons are those devices that are **designed for striking, jabbing, blocking,**

or otherwise controlling combative individuals. Included in this category are the various types of batons in widespread police use. **The straight baton, side-handled baton, and expandable baton** are the most common types of batons used by police.

Heavy metal flashlights and some **martial arts weapons such as nunchakus** are issued by some police agencies for use as impact weapons. However, **both heavy metal flashlights and martial arts weapons create their own problems.** Multi-cell flashlights can be very **heavy** and this along with their **sharp edges can cause serious and unacceptable injuries** to suspects. **Martial arts weapons generally require extensive training to become proficient, and when used as a striking implement can also cause unintended serious injury.**

Batons, on the other hand, have virtually been **standard issue since the beginnings of organized policing.** The materials used in their construction have changed from wood, to high impact, lightweight plastics or metals, but **the modern version is not that far removed from the traditional "billy club" in concept or utilization. Three types of batons are used by members of the Service.** They are the **ASP expandable baton,** the **Casco straight baton** and the **Monadnock PR-24-S side-handled baton.** ASP expandable batons and Casco straight batons are current issue, further Monadnock side-handled batons are not being purchased as this piece of equipment offers no real advantage over the straight baton and requires considerably more training to qualify in its use and remain proficient.

The ASP expandable baton is constructed of telescoping steel sections. It is **tipped with a small diameter metal ball** and it has a **soft foam handle to afford a sure grip.** The ASP issued by our Service **is approximately 21 inches long when expanded and 8 inches long when collapsed.** The baton can be opened from the

collapsed position to fully extended with a flick of the wrist. It is normally carried in a leather or nylon scabbard.

The Casco straight baton is constructed of high impact black plastic. It is approximately 26 inches long and is 1 inch in diameter. It is also equipped with a soft foam handle. The straight baton is carried on a ring secured to the officer's duty belt and is meant to hang parallel to the thigh and leg.

The Monadnock PR-24-S is also constructed of high impact black plastic. It is 24 inches long and 1.25 inches in diameter. Its distinctive feature is an 8 inch long side-handle that protrudes at a 90 degree angle from the main shaft. For most applications this baton is meant to be grasped by the side-handle.

Advantages:

Batons are **lightweight** and are **easily carried on the officer's duty belt and therefore available to the officer in the event of an unanticipated attack.** While none of the issue batons is too cumbersome, **the ASP baton in particular is small** when collapsed and easily concealable, making it **the most suitable baton for plainclothes police work.**

The **visible presence** of a baton hanging on an officer's belt, especially the straight or side-handled baton **can be a deterrent to those individuals inclined to physically challenge an officer's authority.** This visible deterrent however, is not as pronounced with the ASP when carried in its scabbard.

Batons are relatively inexpensive and the training required for most officers to become proficient is reasonable.

Batons can be very effective in immobilizing belligerent individuals, it is *sometimes* possible to use them to disarm persons armed with an offensive weapon,

and they can be used in conjunction with physical holds as a pain compliance device.

An obvious plus is that **the police baton is an approved piece of equipment already authorized by the Police Services Act and our Service Regulations. Furthermore, it is generally accepted as an appropriate LLT weapon by both the police and the public.**

Disadvantages:

Although properly executed strikes, jabs and the like from a baton are usually effective, it must be recognized that **it is a close quarters weapon**. In fact, batons provide **little more stand-off distance than empty hand techniques alone.** This obviously **limits their usefulness** when an officer is faced with **a close range, determined adversary** armed with a **deadly weapon.** It is a **foolish officer** indeed, who **relies solely on the baton to stop a charging subject armed with a knife or sword.**

Batons will cause injuries when used as an impact weapon. Given the **dangerous nature of some attacks** on police officers, **some baton injuries may be easily justified.** As previously stated, the injuries may be of a minor nature, however, **they can be serious and can include broken bones, lacerations, severe contusions or worse.** For example, an unintended **strike to an individual's head** during the confusion of a struggle, or the **intentional misuse** of a baton on a suspect **could cause death.**

Finally, although the straight and side-handled baton are easily belt carried, it is **necessary to remove them when the officer is seated in a patrol vehicle.** Some officers **consider the baton cumbersome** and may **intentionally leave it in the patrol vehicle** when attending an apparent "minor call", only to find themselves in a violent confrontation where the baton may be extremely useful. Or, an officer **may simply forget** to return it to the belt ring when exiting the vehicle in haste. To most persons it might seem ridiculous that an officer would leave a tool as crucial as the baton in their patrol vehicle, **but it does happen all too frequently.**

The **ASP, which is more easily carried might seem to be the answer to this particular problem** but the weapon's advantages can be **outweighed by certain drawbacks.** These include a **failure to telescope** in some situations, **the requirement for periodic inspection and/or maintenance,** and **more severe injuries to suspects** due to the smaller diameter metal sections of this baton.

Oleoresin Capsicum

Description:

Oleoresin capsicum (O.C.) is a natural derivative of the **cayenne pepper plant.** There are approximately nine varieties of the cayenne pepper plant from which oleoresin capsicum is made. Capsicum has many different uses. It can be found in many household and food products. It is used as a spice to give food a hot taste, such as Tobasco Sauce or hot chicken wings. It is also
found in common muscle rubs and liniments. It comes in different colours ranging from white to red.

Oleoresin capsicum is measured in heat units. These heat units were first discovered by a man named **SCOVILLE** and were appraised by a simple tongue test. This test has become very scientific and is now done by computer. The Scoville heat rating test **measures the heat units of capsicum** when applied to the skin. For example, a sweet green bell pepper has a Scoville rating of just 1. Capsicum can range from 0-15 million heat units. **The oleoresin capsicum product used by our Service (*Bodyguard LE-10*) has a Scoville heat rating of 2 million.** *Oleoresin* simply means "oily resin" and is used in conjunction with capsicum to apply the capsicum to a subject.

Bodyguard LE-10 is a product that is **widely used by police agencies throughout North America.** Bodyguard LE-10 is available in aerosol projectors of various sizes ranging from **small belt carried 55 gram cans** to larger **crowd control type units of**

250 and 400 grams.

The use of irritants and inflammatory substances like O.C. for the purpose of gaining an advantage, or control over another person is not a recent innovation. Over 2000 years ago, Chinese warriors threw wrapped packages of ground spices and peppers at their enemies. Japanese Ninjitsu concocted similar weapons for the purpose of blinding their foes temporarily or otherwise.
The oleoresin capsicum aerosol projector, commonly referred to as "pepper spray" was introduced to North American law enforcement agencies over twenty years ago. This product had **significant advantages over the Mace type products** (teargas) then in use. Like Mace, it caused **no permanent injury** when properly employed. However, tests showed that it had a **greater rate of effectiveness than Mace** and **required little decontamination** in comparison with the chemical product.

Thus, many American law enforcement agencies began using O.C. aerosols as one of their force options when reasonable force was required. **In 1987 the Federal Bureau of Investigation (FBI) began an extensive two year test on oleoresin capsicum. Their positive findings resulted in the FBI implementing O.C. as a force option for its Special Agents.**

In July 1992, the Metropolitan Toronto Police began a field study of O.C. through the training and equipping of five hundred members with this specialized product. Results were encouraging and in 1995 the Metropolitan Toronto Police Service Board approved the use of O.C. Service wide.

Virtually all persons having O.C. applied to them show some immediate reactions to the spray. It is an **inflammatory agent** which when placed in contact with mucous membranes causes many of the **following reactions: severe burning, involuntary or spasmodic contractions of the eyes,**
bronchial spasms, gasping for breath, gagging, intense burning of the contaminated skin, and in some individuals nausea may occur.

The effects are not solely due to pain compliance. Rather, they are caused by **physiological reactions** to the O.C. **Most subjects report that the initial shock of the oleoresin capsicum is so intense that their eyes slam shut, and their hands reflexively and immediately cover their faces.** Furthermore, these effects have occurred on individuals that were intoxicated, under the influence of drugs, or emotionally disturbed. O.C. is most effective when inhaled into the respiratory system. The swelling of the mucous membranes of the resiratory system decreases the amount of oxygen entering the lungs and this has a tendency to slow the subject down.

Although oleoresin capsicum initially causes intense discomfort, once an individual has been decontaminated, the effects subside rapidly and are usually gone within an hour. Medical attention is generally not necessary.

Cases have been reported where death has occurred subsequent to O.C. use. These deaths naturally **created concern** among those in the law enforcement community, as well as among others, with regard to **the posssible role O.C. played in these instances.** As a result, the **National Institute of Justice (NIJ)** in the U.S. asked the **International Association of Chiefs of Police (IACP)** to collect data on **in-custody death incidents where O.C. had been used in the arrest. The in-custody deaths of 22**

subjects in 30 arrests where O.C. had been used were reviewed. These incidents occurred **between August 1990 and December 1993.** The report on this review had this to say,

> **In none of the 22 cases was O.C. considered to be a cause of, or a contributor to, the deaths. Rather, the cause of death in the majority of cases was determined to be positional asphyxia, aggravated by drugs, disease and/or obesity. (Granfield, Onnen, and Petty, 1994, 4)**

Advantages:

Oleoresin capsicum spray is a LLT weapon that has **gained widespread acceptance**

from both the police and the public. It has a **proven track record** of safe and effective usage in certain law enforcement applications.

It is a **lightweight** and **practical** tool that can easily be carried on an officer's duty belt and therefore is available for emergency use at all times.

It has proven itself more effective and quicker acting than most chemical sprays such as Mace. Its use on individuals **causes minimal medical implications,** and the **individual** and **surrounding area** are **easily decontaminated using only soap and water.** This is a major advantage over such chemical agents as CN and CS teargas which tend to permeate an area and require extensive clean-up.

Training concerns and cost of the product are both reasonable.

Disadvantages:

Like the chemical spray Mace when it was first introduced, oleoresin capsicum was initially viewed by some as a panacea, a wonder weapon that would render the police handgun superfluous. This **has not happened** because although O.C. is very effective, **it does have certain limitations and disadvantages.**

Like the police baton, **it has limited stand-off distance**. The belt carried units typically have an effective range of **3-6 feet.** The larger "crowd control" units **can be effective up to about 20 feet,** but they are too large to be carried by an officer on the duty belt and therefore might not be available in the event of a sudden emergency. Additionally, **wind and rain can dramatically reduce the effective range of the product.**

More importantly, oleoresin capsicum does not work on everyone. Although the reported effective rate of O.C. is much higher than most chemical weapons, there are

numerous documented failures. These failures have **been attributed to poor applications of the spray such as hitting the subject's chest and not the eyes.** In other incidents, **the failure has been attributed to the mental state of the individual being sprayed.** Studies have shown that **persons capable of creating goal-oriented mind set,** for example martial artists, **can withstand repeated applications of O.C.** Other individuals have inherently fast reflexes and can close their eyes quickly thereby defeating the immediate effects of oleoresin capsicum.

There is a percentage of the population who have a much higher tolerance to pain than most. This would include a person suffering to some degree from mental illness or situational emotional distress.

The terms ***"effective rate"*** or ***"failure rate"*** in reference to the use of O.C. require explanation. These terms can be relevant, given the tactical situation.

For example, oleoresin capsicum could be used to subdue a violent prisoner before removal from a jail cell. In this case the spray could be introduced through the cell bars while the prisoner remains safely locked inside. Imagine in this case that ***the spray takes effect after approximately five seconds***. The prisoner is incapacitated and safely removed from the cell without injury to himself or an officer. In this situation, the use of O.C. would be deemed to have been ***effective.***

In another case, a crazed man armed with a knife charges an officer at close range. The officer manages to properly apply O.C. spray to the subject's face but he is able to press home the attack and stabs the officer in the neck. ***Five seconds after application of the spray, the subject is incapacitated.*** The officer however, has been severely wounded. In this situation, the O.C. spray was ***not effective even though it incapacitated the subject within the same five second period cited in the first incident.***

The examples serve to illustrate that determining the effectiveness or failure of O.C. can be a relative thing, subject to the tactical situation and specific circumstances.

Regardless, our latest records show that oleoresin capsicum was used seventy-one (71) times by Metro Toronto Police during the **period December 1996 to June 1997.** The officers filing the reports indicated that its use **was effective in 65 of those incidents. This translates to an effective rate of approximately 92%.** This is comparable to the statistics provided by other police agencies. For instance, the Victoria State Police in Australia report an effective rate for O.C. usage of 90%. New York City Police, halfway around the world, report a similar rate of effectiveness. The Los Angeles Police Department also report an effective rate of 90%.

The Metropolitan Toronto Police Emergency Task Force on the other hand report effective rates of approximately 50%. They attribute this reduced rate to the fact that **many of the individuals they deal with are extremely agitated, under the influence of drugs and/or alcohol or are emotionally disturbed persons suffering from extreme psychosis.** Because of this, the ETF routinely rely on specialized options available to them such as blast dispersion CS teargas or projectile launchers like the ARWEN 37. These weapons are often used in combination to subdue these persons.

Oleoresin capsicum's limited range and documented failures to incapacitate under certain circumstances are its primary disadvantages. These two factors most contribute to its limited usefulness when an officer is dealing with a close range, life endangering threat. ***It remains however, an important LLT tool for less deadly encounters,*** **and its use, during the last decade, has without doubt contributed to reduced rates of injury for both suspects and police by lessening the number of violent physical confrontations that would have occurred otherwise.**

ELECTRONIC STUN DEVICES

Description:

There are **two main types of electronic shock weapons** that have been available to law-enforcement agencies since the mid-1980s. They are the various **stun guns** and the **Tasers.** These devices are **designed to deliver a high voltage, but low amperage shock** to the body thereby **temporarily immobilizing** a subject by causing **involuntary muscle contractions.** Typically, **the victim collapses to the ground in quivering, spasmodic movements, virtually incapacitated.** The person will remain **dazed for a short period of time,** but usually **remains conscious.**

Stun guns are small hand held devices about the size of an electric razor. They can be carried on an officer's duty belt if required. Stun guns are

equipped with **two metal prongs** which are meant to be **pressed against the intended victim's body while the current is turned on.** To use this device it is **necessary for an officer to be within physical contact distance**. This distance can be increased however if the device is mounted on a pole or similar extension.

Most stun guns produce a **high voltage** (40,000-45,000 volts) **low amperage** (.00006 amp) **pulsating electric shock which travels between the two prongs of the device.** Electrical **shocks of this type are considered safe** when applied to **"normally healthy"** individuals. Stun guns typically use a 9 volt direct current battery for a power source.

The **most effective contact areas** on the body are the large muscle groups such as **the stomach, legs, lower back, arms and upper chest.** It is not necessary to contact unprotected skin as the stun gun's electrical arc will penetrate clothing of various thicknesses. **Heavy winter clothing however, can render the stun gun ineffective.**

In some cases, stun guns have proven to be effective intimidation tools; merely displaying the spark zapping between the two electrode prongs (a “demonstration arc”) has convinced some subjects to comply with police demands. **Stun guns are in use by a limited number of law enforcement agencies in the United States. Others have banned their use** citing **operational limitations** and **several highly publicized incidents in which**

police officers used the devices to torture suspects. More about this later under “disadvantages”.

Because of the limitations of stun guns, many police agencies in the United States have discarded them in favour of the ***Taser.*** The **Taser** was **invented by a Mr. Jack Cover in 1976 and was first used operationally in 1978**. Apparently, Mr. Cover was a fan of the Tom Swift science fiction books. **Taser is in fact an acronym for “Thomas A. Swift Electric Rifle”.**

The Taser is of course not really a rifle, but rather **a handgun type device that fires two barbed electrode darts attached to trailing wires**. Depending on the manufacturer, these **darts are propelled** by either **compressed air** or a **ballistic rifle primer in conjunction with a small amount of smokeless gunpowder.** The initial velocity of the darts is approximately **200 feet per second.**

The darts affix to **the suspect’s skin or clothing** and are attached on the other end to the hand held power unit by 15 foot long trailing wires. If the darts penetrate the skin they usually leave only small bee sting like wounds of little consequence. The darts however, **must be removed from the skin by medical personnel. The current** (50,000 volts/3 amps) **is transmitted** to the **suspect through the wires and can be turned on and off from the hand-held portion of the unit by activating a trigger switch.** The Taser uses a **small nicad rechargeable battery** for its power source. Both **single**

and **two shot models** are available. The barbed darts and wires are contained in replaceable cassettes.

The Taser is advertised as being effective through 1.5 - 2 inches of clothing. Penetration of the skin by the darts is not necessary for the device to work although **heavy or layered clothing can render it ineffective. The Taser has a maximum range of 15 feet** (the length of the trailing wires) but the manufacturer states the **effective range is between 3 and 12 feet.** If the unit is used at closer distances there will be insufficient separation between the darts to allow an effective incapacitating shock. Ideally, the spread between the darts should be 18-24 inches. The darts spread out about 12 inches for each five feet of range travelled, and for full effectiveness it is necessary to have a dart separation of at least 8 inches.

Advantages:

Both Tasers and stun guns are **established police LLT weapons.** In the United States their use is deemed acceptable by many law enforcement agencies and a large portion of the public. **The Taser in particular has seen fairly widespread use, especially in the southern California region.** At present, **no Canadian police agency uses either stun guns or Tasers.**

Both the stun gun and the Taser **are relatively light and portable.** The stun gun is compact enough to be carried as standard equipment on an officer's dutybelt. The Taser may also be temporarily belt carried in a purpose made

holster, but it is considerably **larger and heavier, and because of this it cannot be considered a practical standard belt carried device.**

Many persons have a healthy fear of electricity, and because of this, **electronic stun devices present a strong psychological deterrant.**

The **Taser** allows a **practical stand-off distance of up to about 14 feet or so.** This is somewhat greater than belt-carried O.C. aerosols and of course is a substantial

improvement over such LLT weapons as the baton or the stun gun which require physical contact.

Disadvantages:

Electronic stunning devices can be extremely effective in rapidly incapacitating belligerent subjects. However, statistics kept by several law-enforcement agencies who use the devices or have tested them paint a **somewhat inconsistent picture.**

The Kansas City Police Department studied Tasers but did not adopt them. They conceded that electronic stun devices are **effective about 75% of the time** they are used when officers are able to properly employ them.

Both the Los Angeles Police Department and the New York City Police Department have employed Tasers for a number of years. Los Angeles first employed them in 1980 and since that time **has used them at least 2000 times in street situations. In 1992, the LAPD expert on the Taser, Lt.**
Greg Meyer reported an effective rate of 86%. In a taped interview, then **LAPD Chief Darryl Gates stated the Taser was effective 80% of the time.**
Statistics compiled by the **New York City Police Department** (NYPD) on Taser effective use rates for the **five year period 1987-1991 range from a low of 55% to a high of 75%.** Recent correspondence from **Lt. John McArdle of the NYPD Emergency Services Unit** provided the following,

> **In 1995 the Taser was used by the Emergency Services Unit 138 times and was not effective 50 times. In 1996 the Taser was used by the Emergency Services Unit 108 times and was not effective 41 times. There are different reasons that the unit was not effective; both darts not in contact with the subject, heavy clothing, or a person that this unit had no effect on, usually due to drug usage. (McArdle, 1997)**

Percentage wise then, the **NYPD Emergency Service Unit found the Taser effective 64% of the time in 1995, and 62% of the time in 1996.** These stats demon-

strate that **the Taser failed to incapacitate subjects in a substantial number of incidents. With failure rates as high as 45%, the Taser is clearly not a weapon that an officer should rely upon when attacked by an individual with a deadly weapon.**

The comment made by Lt. McArdle regarding heavy clothing is significant. We live in an area that experiences months of cold weather. People must wear ***heavy clothing*** for protection from the elements. **LLT weapons chosen for Service use must remain consistently effective, or nearly so, for all seasons.** The effective usage rate of over 80% recorded in Los Angeles where people wear light clothing the year round must be viewed in total context.
Mr. Nick Cartwright, Manager of the Canadian Police Research Centre (CPRC) in Ottawa is a researcher in the police technology field. He shares the concern about the Taser's effectiveness when used against those wearing heavy clothing and stated, **"The Taser definitely works best when people are lightly clothed as they are in southern California". Lt. Greg Meyer of the L.A.P.D.** is an acknowledged Taser expert and an enthusiastic supporter of the device. **He concurred with Mr. Cartwright's position** stating that the **concern about the Taser's effectiveness through heavy clothing is a legitimate one.**

The Taser provides a limited stand-off distance. The **stun gun** provides **none.** As already stated, the maximum range of the Taser is 15 feet, the full extension of the connecting wires. There has been **some confusion** generated **in the media about both the stand-off distance the Taser permits and its apparent effectiveness.** An article in the Toronto Sun with comments attributed to Ontario Solicitor General Bob Runciman said this,

> **The Taser gun shoots about a 25-30 foot cord into the body of someone and an electrical shock stuns them and knocks them down. Those are the kinds of tools I'm talking about. (Harder, 1997, p2)**

The ***range*** of the Taser cited in this article is ***erroneous,*** and as the user statistics

prove, the Taser does not always ***"stun them and knock them down".***

The Taser **requires skill in aiming** in order that both contact darts strike the individual. **Care must be taken that the darts do not strike the subject's eyes which could result in serious injury.** The manufacturer recommends that subjects be shot in the back with the Taser in order to avoid hitting the eyes and because the tightness of the clothing across the back "makes for a better target".

The Taser must be reloaded to be used more than once or twice, and this is something that cannot be readily accomplished during the stress of a critical incident.

The Taser and stun gun are mechanical/electrical devices which require somewhat delicate care in handling and are **subject to operational failures** if equipped with weak batteries. **Frequent inspection/testing of the devices would be necessary.**

Some persons have an abnormal physiological resistance to electric shock. Those under the influence of drugs and emotionally disturbed persons sometimes exhibit this unusual resistance.

Service use of stun guns or the Taser would require change to existing legislation. The Police Service Act would require amending to permit the use of these electronic stun devices.

The electrical arcing created when stun guns or Tasers are employed can ignite flammable materials. This was unfortunately demonstrated several years ago in the United States when **a belligerent suspect was first sprayed with oleoresin capsicum and then "Tased". The O.C. spray employed used an alcohol based carrier and the Taser ignited this carrier causing severe burns to the suspect.** The Metropolitan Toronto Police Service uses O.C. products that are **not flammable,** however, electronic stun devices would **be dangerous to use in an environment filled with explosive vapours or natural gas.**

The cost of the devices, particularly the Taser, is somewhat prohibitive. The **Taser**, fully equipped with sighting system **costs approximately $500.00 (U.S.) each.** Training costs would also be high both in dollars and the time required as the Taser is a tool requiring skill to use properly.

Police in the United States have used the Taser on literally thousands of people with minimal resulting medical implications. However, there is **some uncertainty as to the role the Taser played in several incidents where suspects died after Taser use in California. Drugs** were believed to be a factor as was **ill health, especially cardiac problems.**

James F. McNulty is Vice President of Operations of the Taser manufacturer **TASERTRON. He related that in only three cases where death occurred has the Taser been confirmed as a contributing factor.**

Finally, the whole idea of using electrical shock as an instrument for Police control in Canada may be unacceptable to both the public and many officers.

This has been the case in many jurisdictions in the United States that studied the stun gun and Taser and because of fear of misuse, decided against them. Highly publicized incidents such as the **Rodney King occurrence** in Los Angeles in which **King was repeatedly "Tased"** while being **beaten by police** and **incidents where police officers used stun guns to torture individuals have confirmed these fears.** An article written by Dr. Gerald D. Robin in the Police Forum of the Academy of Criminal Justice Sciences Police Section detailed several incidents;

> **Regrettably, stun guns have been at the centre of several "shocking" police brutality cases which resulted in criminal prosecutions and lawsuits. A sheriff's lieutenant in San Antonio received two years probation for repeatedly zapping a handcuffed suspect in 1984. In the summer of 1985, the Los Angeles County coroner undertook an investigation into the death of a suspected PCP drug user who was also tortured with stun guns by the police.**

The most notorious incident of stun gun misuse comes from New York City, where 18 year old Mark Davidson was picked up by the police while walking down the street, and taken to the 106th Precinct in Queens. There, two officers allegedly held Davidson down while Sgt. Richard Pike jolted him with a stun gun until he confessed to selling $10 worth of marijuana. In court, Davidson revealed dozens of burn marks over his back and abdomen to substantiate his story. Three other men subsequently came forward and claimed that they, too, had been subjected to similar stun gun abuse at the 106th during 1985; in their accounts, the men said that they had been screaming loudly enough to wake the dead.

The officers in the Davidson case were convicted of assault and related charges, and sentenced to up to six years in prison.....In 1990, New York City reached a $1 million settlement in the civil suits filed by the four stun gun victims, with the largest award ($450,000) going to Davidson. (Robin, 1996, 2)

TEAR GAS

Description:

Tear gas is not really a gas at all but rather a fine chemical powder. There are **two types** of tear gas commonly used by law enforcement, **CN** (chloroacetophenone) and **CS** (orthochlorbenzalmalononitrile). **Both differ in their potency and speed of effectiveness.** *Mace*, a trade name, is simply tear gas in an aerosol form.

CN was invented by a German chemist in 1869. CN, along with such deadly agents as mustard gas and chlorine gas were used by several of the combatant nations during World War 1. **It is primarily a lachrymator which especially effects moist areas of the body. It causes severe burning and itching of the skin, pronounced tearing of the eyes, an inability to control the eyelids, and upper respiratory system irritation.** Although **CN is the milder** of the two chemicals it is **usually faster acting,**

often causing incapacitation **within one to three seconds.** This is because CN vaporizes more quickly than CS.

CS was developed by the British and was used initially by them during military operations in Cyprus during 1961. It is **more powerful than CN** and is also **longer lasting.** CS usually **causes incapacitation within three to seven seconds. CS is considered an irritant agent. The effects of CS include extreme burning of the eyes accompanied by copious flowing tears, involuntary closing of the eyes, severe burning sensation on moist skin, running nose and sinus. It also causes a pronounced tightening of the chest and throat that some describe as a feeling of suffocation. CS can also cause dizziness.**

Although CS is a more powerful agent, it is considered safer to use than CN because a much heavier concentration is required to be lethal. However, both chemicals have a proven safety record with regard to the likelihood of fatal overdose. In fact, an individual would have to be

subjected to extreme quantities of the chemical as it is marketed to law enforcement before the effects would prove deadly.

There are **several methods used to deliver or disseminate** the CN or CS agent. **These include expulsion type blast dispersion grenades** which expell the chemical from small holes in the grenade body, **blast dispersion cartridges** in both 12 gauge and 37 mm sizes, **pyrotechnic or burning grenades,** and **liquid carrier dissemination in the form of both aerosol sprays and liquid filled barricade penetrating projectiles called "Ferrets".**

These devices have multiple uses. **These include; 1/ Crowd control, 2/ Introducing gas into a barricade situation to induce surrender or provide a clearing team with a tactical advantage, and 3/ Direct use against violent subjects by means of an aerosol or blast dispersion cartridge in either 12 gauge or 37 mm.**

Advantages:

Tear gas is an accepted LLT police weapon in widespread use throughout the world. **Its use is permitted under Regulation 926 of the Police Services Act.**

Both CN and CS tear gas have a **good safety record** when properly employed according to the manufacturer's recommendations.

Tear gas can be **extremely effective in crowd control situations** or **when used to induce surrender of barricaded suspects.**

Blast dispersion cartridges used by specially trained and equipped teams like the ETF have **proven particularly effective in disarming and incapacitating violent individuals armed with non-firearm weapons.** These blast dispersion cartridges are **fired from 37mm gas guns.** The chemical agent, usually CS, is mixed with a talcum powder like substance and is **propelled up to about fifteen feet** by means of a gunpowder charge. **This provides a useful stand off distance.** When discharged, the powder and CS mix create a cloud that envelops the individual, usually causing rapid incapacitation.
In addition, the loud bang and flash that occurs as the cartridge detonates serves to both startle and disorient the individual allowing officers to move into contact range safely.

Both CN and CS agents are effective against a broad range of individuals, however, they sometimes have little or no apparent effect on emotionally disturbed persons or those under the influence of drugs.

Disadvantages:

Although fast acting, **CN and CS agents do not cause instant incapacitation.** There will be a time lag between application and effect. **This fact could preclude their use when an officer is faced with a close range life endangering threat.**

Pyrotechnic CS and CN cannisters can cause fires. These devices burn at high temperature as they release the chemical agent and **have caused several fatal fires when improperly used indoors.** They are designed for outdoor riot control use, the burning action releasing large amounts of chemical and preventing rioters from throwing the cannisters back at the police.

The **gas guns** used to deliver both barricade penetrating projectiles and blast dispersion cartridges **are somewhat inaccurate and require extensive training for an officer to become proficient in their use. They are also large and cumbersome and impractical to carry by a front line officer** to guard against an unanticipated attack or for use in an unexpected emergency.

12 gauge CN and CS projectiles (Or for that matter, *any* LLT munition designed to be fired from a 12 gauge shotgun) must be handled with extreme care as they can easily be mistaken for 12 gauge rifled slug or OO buckshot rounds. Obviously, a mistake of this nature could result in unintended use of *deadly force* by an officer.

The greatest drawback of tear gas is that the irritant particles do not fall rapidly to the ground as does O.C. Instead, they remain airborne, are usually invisible, and tend to permeate and contaminate an entire area. This makes it necessary for all personnel who must operate in a tear gas contaminated environment (police, ambulance, fire etc.) to be trained on

and equipped with gas masks. Any individual without a gas mask would themselves become incapacitated due to the effects of the chemical. **Of course, this could include innocent bystanders in the vicinity.**

Decontamination procedures for CN and CS are more involved than those required for O.C. O.C. cleanup both for the affected individual and personal property

usually requires only washing with a soap and water solution. Tear gas decontamination *of the individual* is usually just a matter of flushing with copious amonts of fresh water.

Decontaminating *property* is more difficult. It is necessary to **ventilate** an area affected by tear gas. **Water vacuuming** and **wet cleaning** on floors, walls etc. is often necessary. **Affected rooms should be sealed off and heated to at least 95 degrees F (35 degree C) for a minimum of four hours to dissipate the chemical. Dry cleaning** of all **affected clothing and fabrics is recommended. Finally, exposed foodstuffs will absorb CN and CS and should be discarded.**

Obviously, tear gas is not a practical tool for use by general patrol officers because of the cross contamination and clean up problems. However, when appropriately used by units such as the ETF who are trained and equipped to properly employ it, it is an extremely valuable and effective tool.

Projectile Launchers

Description:

There are many types of **projectile launchers** and the **specialty munitions** for use with them available to law enforcement. **The concept is simple.** When properly employed, the projectiles launched from them are **designed to deliver a debilitating body blow to a subject's abdomen comparable to a vigorous punch, thus incapacitating the individual without causing dangerous penetration wounds that normal bullets would cause.** The projectiles are usually made of **rubber** or **soft plastics.** Some launchers offer the added benefit of also delivering tear gas alone, or in combination with an impact round. **Accuracy and effective range vary depending on the type of weapon and munition, and the level of training the operator has received.**

The most commonly used are 12 gauge and 37/40 mm "bean bag" rounds, rubber slug or buckshot rounds designed for use in 12 gauge shotguns, and various low lethality munitions for use in weapons such as the ARWEN 37 and Sage SL6 projectile launchers. There are other types including the double-barrelled "Flash-Ball" gun and the MR-35 "Punch Gun" which fire rubber ball projectiles.
The "bean bag" rounds are not bean bags at all but rather are small, square or round, pliable pouches usually filled with metal pellets. They are **rolled or folded** to fit in 12 gauge shotgun cartridge cases or the 37/40 mm cartridge cases. **When fired they are supposed to unroll or unfold to full size and strike the intended target fully open and face on, distributing their impact energy evenly.**

The **rubber slug** and **buckshot rounds** are similar to standard ammunition except that the **projectiles are made of rubber instead of lead, and are loaded to reduced velocities, typically 300-400 feet per second at the muzzle compared with 1200-1600 feet per second for lead projectiles.**

The **ARWEN 37** (*Anti Riot Weapon ENfield*) and **Sage SL6** are **multi-role, multiple shot projectile launchers** in use by a number of police agencies (almost exclusively by either SWAT teams or riot control units) in Canada, United States, Great Britain and other nations. **Munitions available for them include high and low energy "baton rounds" (an improved type of "rubber bullet"), tear gas rounds, combination baton and teargas rounds, barricade penetrating rounds and others.**

Also available are attachments for certain rifles such as the Colt M16 which allow the user to fire various types of "rubber bullets" instead of standard ammunition. A typical rubber bullet is a solid, blunt-nosed cylinder of rubber approximately 5 inches long, 1.5 inches in diameter and weighing about 5 ounces. They have a muzzle velocity of about 250 feet per
second (fps). The concept of the rubber bullet is similar to that of the projectile launcher. **In use however, rubber bullets fired from rifle adapters have caused a significant number of unintended deaths and serious injuries.** More about this

issue under disadvantages.

At present, the Metropolitan Toronto Police Service employs both the ARWEN 37 and the SL6 projectile launchers. The use of the weapons is restricted to specially trained members of the Emergency Task Force. Bean bag rounds, rubber slugs and buckshot, rubber bullets fired from rifles, and devices such as the Punch Gun and Flash-Ball Gun are not used by the Service.

Advantages:

Operational experience with both the ARWEN 37 and the Sage SL6 have proven both weapons to be quite effective when properly utilized by specially trained personnel. In Metropolitan Toronto, the ETF have successfully used the ARWEN 37 and SL6 alone, or in conjunction with the application of tear gas to subdue numerous violent emotionally disturbed persons or individuals under the influence of drugs and/or alcohol.

Projectile launchers like the ARWEN 37 and SL6 are **large, intimidating looking weapons** and because of this they can be a **psychological deterrant** to some suspects.

The main advantage of projectile launchers over other LLT weapons is the substantial stand off distance that they permit. Most LLT weapons have closer distance requirements for effective implementation, and thus place the officer in potentially fatal proximity to a subject armed with a deadly weapon such as a knife or club. **Although some wildly optimistic claims are made as to the effective range of some of these weapons, the best ones like the ARWEN 37 and SL6 have proven effective and accurate out to about 30 yards under operational conditions.**

Disadvantages:

As noted, the use of projectile launchers has been generally restricted to specially trained personnel on special weapons and tactics teams and riot control units. **There**

are many reasons for this.

Virtually all the projectile launchers are large and somewhat cumbersome. Certainly they are not capable of being belt carried by the front line responder as a standard piece of equipment.

Projectile launchers can be deadly. The increased stand off distance permitted by the most effective ones is due in large part to the fact that they are quite powerful, capable of propelling projectiles substantial distances while still delivering sufficient retained energy to knock down and incapacitate a subject. **Because of this power they can kill if used at closer than recommended ranges or if a subject is hit in the head, throat, or heart area.** Indeed, numerous deaths have been attributed to improper use
of these weapons at close range or unintended strikes to the head, neck etc. **ARWEN rounds have killed several persons under these circumstances.**

Our own testing of some of these weapons and the munitions for them has brought into question the validity of claims made by the manufacturers. Some of the weapons may appear impressive but do not provide adequate knock down power for police use. A report prepared by the Metropolitan Toronto Police Public Safety Unit on the Manurhin MR-35 Punch Gun related,

> **Accuracy is a problem with this gun. It is acceptably accurate at 7 metres but by 18-20 metres, the weapon suffers greatly.....The MR-35 may have limited use in home defense.....However in dealing with violent crowds or hostile individuals, it is unlikely that the MR-35 has sufficient impact to stop a determined, aggressive assailant.....While probably fine for so-called "home defense", I doubt if its flimsy construction would stand up to protracted duty use/training. (Ellarby, 1995, 5)**

Many low lethality munitions perform inconsistently. Accuracy and effective range claims are usually not attainable under even ideal training conditions, let alone operational ones. **A particular danger is that the advertised velocities of the projectiles are often significantly inaccurate. Rounds that fall below advertised velocities may not incapacitate a subject. Rounds that are significantly faster than advertised may kill.**

For example, the **Fiocchi ammunition company** markets a range of munitions as **"less-lethal" 12 gauge shotshells.** One of these is a soft rubber 12 gauge slug with **an advertised velocity of 600 feet per second (fps).** A report prepared on these munitions after testing by **Metro Armament Office and Public Safety Personnel stated,**

> **This round contains a soft rubber slug weighing approximately 70 grains, and is advertised for use in crowd control at distances of 15 metres to 40 metres (50 to 130 feet). (Testing showed)...at a distance of 15 metres, with a centre mass aim, the first round hit dead centre of the scoring zone. At a distance of 75 feet (about 23 metres), 2 rounds were fired, again with a centre of mass aiming point. The first round hit in the lower left portion of the scoring zone, while the second round hit the left side of the scoring zone, above the first round. All three rounds fired were well within the scoring circle.....We fired 4 rounds through the chronograph, with the following results: Round 1 - 814 fps, Round 2 - 785 fps, Round 3 - 831 fps, Round 4 - 831 fps.....This gave an average velocity of 815 fps which is well above the recommended less-than-lethal velocities. While the performance of the slug in these tests was acceptable to us (accuracy), the muzzle velocities were not. (McLean, 1997, 3)**

Testing has also shown that bean bag rounds sometimes do not open fully when fired, instead impacting the target still partially folded or rolled. This could cause serious injury because the round's energy is distributed across a much smaller area than intended by the manufacturer.

A barricaded emotionally disturbed man in Ottawa recently died after being struck by a bean bag round fired by a tactical team member. Investigation re-

vealed that although the round had been used in accordance with the manufacturer's recommendations, it somehow penetrated the man's body and struck his heart. As part of the subsequent investigation into this death, a number of the make and type of bean bag round that killed this man were tested. The rounds were chronographed for velocity. **Several exceeded 400 feet per second (fps).** ***The manufacturer advertised them as having a maximum velocity of 300 fps.***

Personnel who use projectile launching weapons must be highly trained to both fully understand the weapon's capabilities and dangers and to enable them to accurately fire projectiles at specific targets. This training requires a substantial amount of time to attain the necessary knowledge and proficiency.

Finally, the cost of the effective projectile launchers like the ARWEN 37 or SL6 is prohibitive, each weapon costing several thousand dollars. Ammunition, including that needed for training purposes is also extremely expensive, some costing upwards of $30.00 per round.

Other Devices

There are many other specialized and innovative LLT weapons **under development, in the prototype stage, or just recently available to law enforcement agencies.** Amongst others, they include **net launching/capture devices, sticky foam guns, disorienting pulsed or laser light, wireless Tasers,** and a type of **impact projectile called R.A.G**.

Most people are familiar with **net launching capture devices.** They have been featured in wildlife television programs where they are **used to capture wild animals.** Those developed for law enforcement use are **similar in concept.** Most are **hand held devices that use compressed air or expanding gases to propel a net** (in most cases equipped with weights) at a belligerent suspect. The net is supposed to **entan-**

gle the individual, trapping the person so that an officer can approach to contact distance and make a safe apprehension. **Some nets are treated with a sticky foam substance to enhance the entangling and binding nature of the net.**

Testing has shown that these net launching devices are largely impractical and ineffective for most aspects of operational police use. The units that launch the net are **quite cumbersome, some being larger than a high power rifle.** Certainly, they are **not capable of being carried on an officer's duty belt. The accuracy possible with the devices at stand-off distances of 20 feet or so is unacceptable, the operator often**
missing the intended target. Even when the net is accurately placed on a subject, they are quite often able to quickly free themselves. Although the net launching concept shows promise for the future, it is at present neither practical nor effective enough to be considered seriously for adoption by the Service.

The **development of restraining foam or "sticky foam"** as it is more commonly referred to **began in 1992 at Sandia National Laboratories in the United States.** This is the LLT weapon that people call the **"glue gun". The Sandia project resulted in the development of a shoulder-slung gun and separate underslung foam dispenser which weighs 32 pounds.** The unit is capable of **firing multiple shots of the extremely tacky sticky foam up to 35 feet. The foam expands up to 30 times its pressurized volume** once fired. An article in the Police Forum said this about the Sandia developed restraining foam,

> **The foam was tested on employee-volunteers (of Sandia) who acted out law enforcement and prison disturbance scenarios. Use of the foam by police to entangle and impair suspects in common street encounters was found to be impractical and ineffective for a number of reasons. The unit could not produce a high-velocity stream with acceptable accuracy i.e., targets could easily avoid being "stuck up". Temperature changes, rain and wind affected the deployment of the substance. The tough material was difficult to remove from the suspect, could cause the destruction of personal property, and left a "big mess" that required a significant clean-up effort. There was a**

> **suffocation risk, especially when used on the spur of the moment by police in the field, since there might not be enough time to safely remove the material if it occluded the subject's mouth and nose. Sticky foam may not be non-lethal, in that the risk of serious injury or death associated with the device is higher than with other LTL technologies. As a result of these problems, Sandia has discontinued police-arena applications.....(Robin, 1996a, 6)**

The use of extremely bright pulsed light or disorienting laser light as a police distraction tool is being studied by several groups including the National Institute of Justice in the United States. Study in this area is relatively new and most devices developed up to this point are purely in the **unproven prototype stage.**

Both **bright pulsed light** and **disorienting laser light** must be regarded as **distraction devices only. They do not incapacitate** in the true sense. The effect they cause is quite similar to what a person experiences when a camera flash is activated in their face at close range. **It can be somewhat difficult to see for a brief period but clear vision returns quite rapidly.** Another problem with these devices is that they are **most effective when used in reduced light.** They are also **difficult to aim accurately during the day.** Pulsed light and laser light systems can be built into **flashlights, batons, firearms** or **surveillance cameras.** Some are ridiculously expensive including a **hand held laser flashlight costing $1500** and a **laser baton costing $1000.** Although the practical value of bright pulsed light and disorienting laser light is at present limited, it is another area that shows possible promise for the future. Another device, still only in the prototype stage, is the **"wireless Taser". This device obviously hopes to do away with the present Taser's connecting wires, one of the device's major disadvantages.** If this is possible and testing results are favourable, this device would warrant a closer look.

The ring airfoil grenade, or R.A.G. is not a grenade at all but rather it is a rubber projectile that was designed to be fired from a specially equipped M16 rifle. It was **developed for the U.S. military about twenty-five years ago** following the Kent State University riots in which four student protesters were shot dead by Na-

tional Guardsmen.

Its unique cross-section is actually a wing airfoil and therefore it "flies" to the target. This is claimed to improve accuracy and range. It has recently been "redis-covered", the **National Institute Of Justice** in the United States and the **Canadian Police Research Centre** in Ottawa in particular showing interest in the device. **Demonstration of the weapon by a representative of the United States Marine Corps took place in Ottawa in October 1997.**

The R.A.G. is a small soft rubber ring about 1.5 inches long and 2.5 inches in diameter. A variant of the R.A.G. is a similarly shaped soft rubber cylinder that contains tear gas. The **concept** of the R.A.G. **parallels other launched projectiles** like the ARWEN, however, it is claimed that the **R.A.G. is much more accurate at extended ranges and it**
is claimed that it is *non-lethal* at all ranges. The claim that it is non-lethal at all ranges is doubtful. ***Any projectile, even something as innocuous as a baseball, can kill if it strikes certain vulnerable areas of the head.***

During the demonstration of the device in Ottawa, the Marine Corps representative and several seminar participants fired the weapon. **The level of accuracy attained was unacceptable, a majority of the rounds fired missing the intended target.** This was attributed to the advanced age of the ammunition although this does not seem to be a completely satisfactory explanation. **In comparison, many other projectile launchers deliver far superior accuracy and are much easier to load.** Some, like the ARWEN 37 also offer multiple round capability, **the R.A.G. being strictly a single shot device.**

The R.A.G. projectile is claimed to have a **muzzle velocity of 210 feet per second** and a **muzzle energy of about 40 ft/lbs.** Both are quite low in comparison to other impact projectiles. **In fact, these levels may prove insufficient to stop a determined, aggressive individual.** This has been the case where low intensity ARWEN rounds have been used on violent emotionally disturbed persons, the rounds having

little effect even when fired at close range. ***Note that the low intensity ARWEN round has an energy level twice that of the R.A.G.*** The R.A.G. has not yet been used operationally, nor have sufficient tests been conducted to determine its actual effectiveness. **Although it is an innovative and unique impact projectile,**

more development and testing will be required before the R.A.G. can offer any real advantage over existing impact projectiles.

***

Less Lethal Technology is an area experiencing rapid growth and experimentation. Generally, this is a good thing, which hopefully will lead someday to the design and production of the "wonder weapon" that may do away with the need for the police sidearm. **One must remember however, that in most cases, these devices are designed and produced for *commercial gain*. Some devices, highly touted by the manufacturer, have proven to be of little or no use under operational police conditions.** Some of the reason for this is no doubt **the result of naivety or a lack of understanding of the real world needs of policing. We can only hope that designers and manufacturers of LLT devices strive to understand the needs of the officer on the street and have a sincere interest in the safety of both the public and the police.**

RECOMMENDATIONS

This report has described various less-lethal weapons for police use. The comparative advantages and disadvantages of each weapon have been discussed relative to their potential use by the front line police responder.

In particular, the report has examined the devices available in relation to their **practicality, effectiveness, safety, cost, training issues, and political and legal concerns.** The keys issues here are ***practicality*** and ***effectiveness***. Regardless of the cost,

safety, training issues or legal concerns, **many new technology less-lethal weapons although innovative, are impractical, ineffective, or a combination of both.**

Consequently, this report's four recommendations emphasize the *continued, but expanded use of conventional less-lethal weapons* while continuing to *proactively test and evaluate new technology* for possible *future* Service adoption.

Recommendation #1

THAT all front line officers be trained on and equipped with belt-carried oleoresin capsicum spray. This training should be mandatory.

By the end of 1997 approximately 3000 members of the Service will be equipped with belt-carried O.C. However, some front line uniform officers and many plainclothes officers will still not be equipped with this tool. O.C. training presently is voluntary. Oleoresin capsicum has proven to be an effective and practical LLT weapon for certain law enforcement applications. It is an intermediate force option that officers may utilize in lieu of punches, kicks, or use of the baton, all of which can cause serious injuries. Under certain circumstances, the use of O.C. can prevent an officer from having to escalate response to the use of firearms. Public safety, officer safety, and Service liability concerns would be more thoroughly addressed if all front line police

officers are trained on and equipped with belt-carried O.C.

Recommendation #2

THAT all front line officers, whether assigned to a uniform or plainclothes function, be trained on and issued with both the Casco Straight Baton and the ASP Expandable Baton.

All front line officers, regardless of assignment, must be provided with appropriate safety equipment. This of course includes a baton.

The most effective baton for uniform use is the Casco Straight Baton. It offers certain advantages over the Monadnock PR-24 and the ASP Expandable Baton which have been detailed in this report. The ASP
however, is the only practical choice for plainclothes duty when the baton must be carried in a concealed manner.

During an officer's career, most will work at various times in both a uniform and a plainclothes capacity. Often times, movement between the two functions is unexpected and therefore unplanned due to operational requirements. Frequently, when an officer is assigned to a plainclothes assignment it is just not possible for the Service to provide ASP training in a timely manner. This results in some plainclothes officers performing their duties without the vital intermediate force option that an ASP would provide.

Training and issuance of both batons to front line officers would help to facilitate transition from uniform to plainclothes duties and vice versa. More importantly, it would enhance officer and public safety and better address Service liability issues related to providing adequate safety equipment.

Recommendation #3

THAT an operational pilot project be conducted to evaluate the effectiveness and

practicality of equipping selected patrol vehicles with large 400 gm containers of Oleoresin Capsicum aerosol spray.

As this report has related, O.C. has a proven track record. It is an established, safe, and practical tool with an effective rate of approximately 90%. This is considerably higher than most other LLT devices and its cost is

also reasonable. As stated, O.C. is available in several different sizes of container.

Although the 400 gm containers are too large (10 inches tall, 2.5 inches in diameter) to be belt carried, they provide considerably increased performance over their smaller counterparts and could easily be carried within the patrol vehicle for use in certain situations.

A major disadvantage of the 55 gm belt-carried containers is their limited range, typically 3-6 feet. The effective range of the large 400 gm containers is 15-20 feet which permits a much greater officer to suspect stand-off distance. The 400 gm units also put out considerbly more O.C. when discharged, and they do so in a cone fogger fashion which simplifies aiming for the operator.

Although not suitable for most indoor uses because of the large volume of O.C. emitted, these large containers could prove extremely valuable to the officer in an outdoor situation. Certainly, a significant number of critical encounters between police and suspects do occur outdoors. Testing has shown that cross-contamination concerns are largely unwarranted. The O.C. dissipates quite rapidly when used outdoors allowing officers to move in and take control of a suspect without excessive cross-contamination.

This pilot project would place fifty (50) 400 gm pepper spray units in selected uniform patrol vehicles throughout the Service. The project would

be conducted over a one year period. One year is a reasonable amount of time to

properly assess the practicality, effectiveness and overall performance of the containers in an operational setting. It would also permit evaluation of the units under the varying temperature and climatic conditions that would be encountered as the seasons change.

Concerns about the sensitivity of the containers to both high and low temperatures have been raised by some officers. The manufacturer has expressed confidence that the units will function properly throughout the temperature ranges likely to be encountered. Each container is pressure tested to a minimum of 130 degrees Fahrenheit by the manufacturer. Deep freeze testing has been done by both the manufacturer and Training and Education Staff, this condition having no apparent effect on the performance of the containers.

Nevertheless, we should take some precautions to ensure utmost safety and performance. The containers should not be left in the vehicle at all times but rather should be signed out and returned at the commencement and completion of a shift in the same fashion that a shotgun is. Additionally, it is recommended that the containers be carried within an available thermal wrap in the vehicle to more uniformly control its temperature.

Finally, training for this project could be accomplished quite efficiently, doing so within the respective Commands and training those individuals already O.C. trained on the belt-carried 55 gm container.

Recommendation #4

THAT a standing committee be established within the Service to research, evaluate, and test less-lethal technology weapons as they become available to law enforcement.

A standing committee consisting of selected representatives from the Emergency Task Force, the Training & Education Unit, the Public Safety Unit and the three Field Commands should be established to research, evaluate, and test less-lethal weapons as

they become available. The suggested staffing of the committee will best represent general Service concerns as well as those of specialized units. The committee will provide coordination and structure to LLT research and evaluation, improve communication on LLT matters between units, and prevent duplication of effort. This group would meet on a regular basis as required for discussion, testing, and evaluation of LLT weapons and would represent the Service at demonstrations of equipment by manufacturers. It would also serve as a central "clearing house" to receive information, updates, product reviews etc. from manufacturers and other law enforcement agencies.

Less-lethal technology is a growth industry, producing devices at a surprising rate. This committee would provide the best vehicle to research, test, and evaluate LLT weapons from a professional, practical and informed perspective.

CONCLUSION

Police officers are often confronted with situations that require them to make split second decisions, **some of which may have severe, life threatening consequences for the public and themselves.**

In these situations, the proper application of force, especially deadly force is a critical concern. ***Minimizing force wherever possible is the goal of the Metropolitan Toronto Police Service.*** The utilization of appropriate less-lethal technology weapons definitely has a part to play in achieving this goal. **At present however, that part is somewhat limited.** A text on police use of deadly force had this to say in 1992,

> **It was tempting then, and remains so now, to hope for technological and scientific solutions to human problems, whether hunger, poverty, disease, or violence. Technology and science may eventually provide police with a tool that nonviolently and instantly immobilizes adversaries-like the "phasers" or ray guns of science fiction fame. In the near term, however, less-lethal devices clearly have**

> **been conceived as supplements to, rather than substitutes for, firearms.....At the same time, all who advocate the merits of less-lethal weapons readily acknowledge that some encounters are life-and-death struggles calling for the prompt and decisive use of deadly force. (Geller and Scott, 1992a, 358).**

Although we hope for it, reality is that the police wonder weapon that ***"will do it all while hurting less"*** does not yet exist. Certainly, there is nothing at present that is a less-lethal replacement for the firearm in all potentially deadly encounters.

Consequently, this report has recommended the continued, but expanded use of conventional less-lethal weapons while continuing to proactively test and evaluate new technology as it becomes available.

These important recommendations, if implemented, will ensure that the most modern, effective and practical less-lethal weapons are available to our officers, thereby minimizing force where possible while continuing to optimize police and public safety.

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Mr. Nick Cartwright, Manager, Canadian Police Research Centre
Mr. Eric J. Cramer, Sen. Engineer, Science & Engineering Associates Inc.
A/S/Sgt. Glenn DeCaire, Use of Force, Metro Toronto Police Service

Sgt. John Docherty, Defensive Tactics, Metro Toronto Police Service
Dr. Raymond Downs, Deputy Director, National Institute of Justice
Lieutenant Chris Elisson, Emergency Service Unit, N.Y.P.D.
A/S/Sgt. Fred Ellerby, Public Safety Unit, Metro Toronto Police Service
Patrolman Mark Hatcher, Defensive Tactics, Kansas City, Missouri P.D.
Insp. Neil Haynes, New Scotland Yard, London Metropolitan Police
Sgt. John Howell, Emergency Task Force, Metro Toronto Police Service
Sgt. Charles Kelly, Firearm Unit, Detroit P.D.
Sgt. Robert Lisenby, Training Academy, Los Angeles P.D.

Lieutenant John McArdle, Emergency Service Unit, N.Y.P.D.
Sgt. Jim McLean, Public Safety Unit, Metro Toronto Police Service
Mr. James McNulty, Vice President of Operations, Tasertron Corp.
Lieutenant Greg Meyer, Use of Force Expert, Los Angeles P.D.
Deputy Mike Quayle, Defensive Tactics, British Columbia Sheriffs Dept.

Mr. Barry Ramer, Guardian Personal Security Products, Phoenix, Ariz.
T.C. John Romain, Defensive Tactics, Metro Toronto Police Service
A/Insp. Wes Ryan, Public Safety Unit, Metro Toronto Police Service
Insp. Stuart Shearer, Victoria State Police, Australia
S/Sgt. Garry Silliker, Emergency Task Force, Metro Toronto Police Service
A/S/Sgt. Darrin Smith, Metro Toronto Police Service

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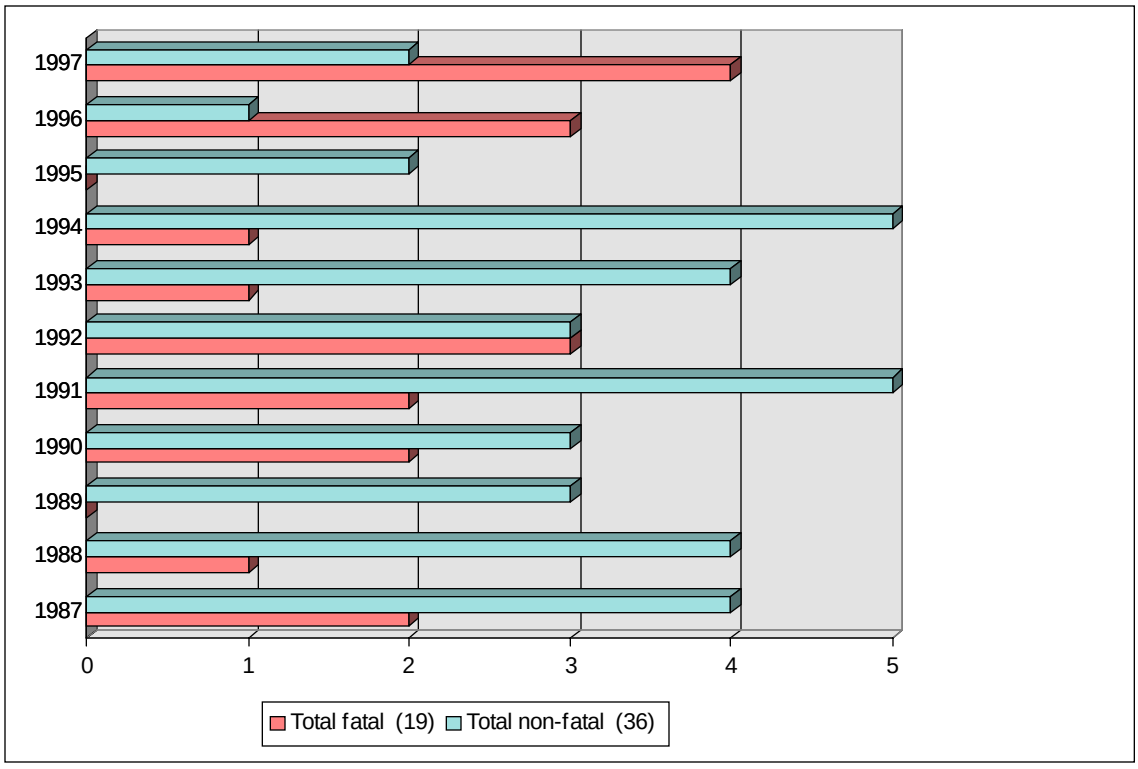
STATISTICAL RESEARCH

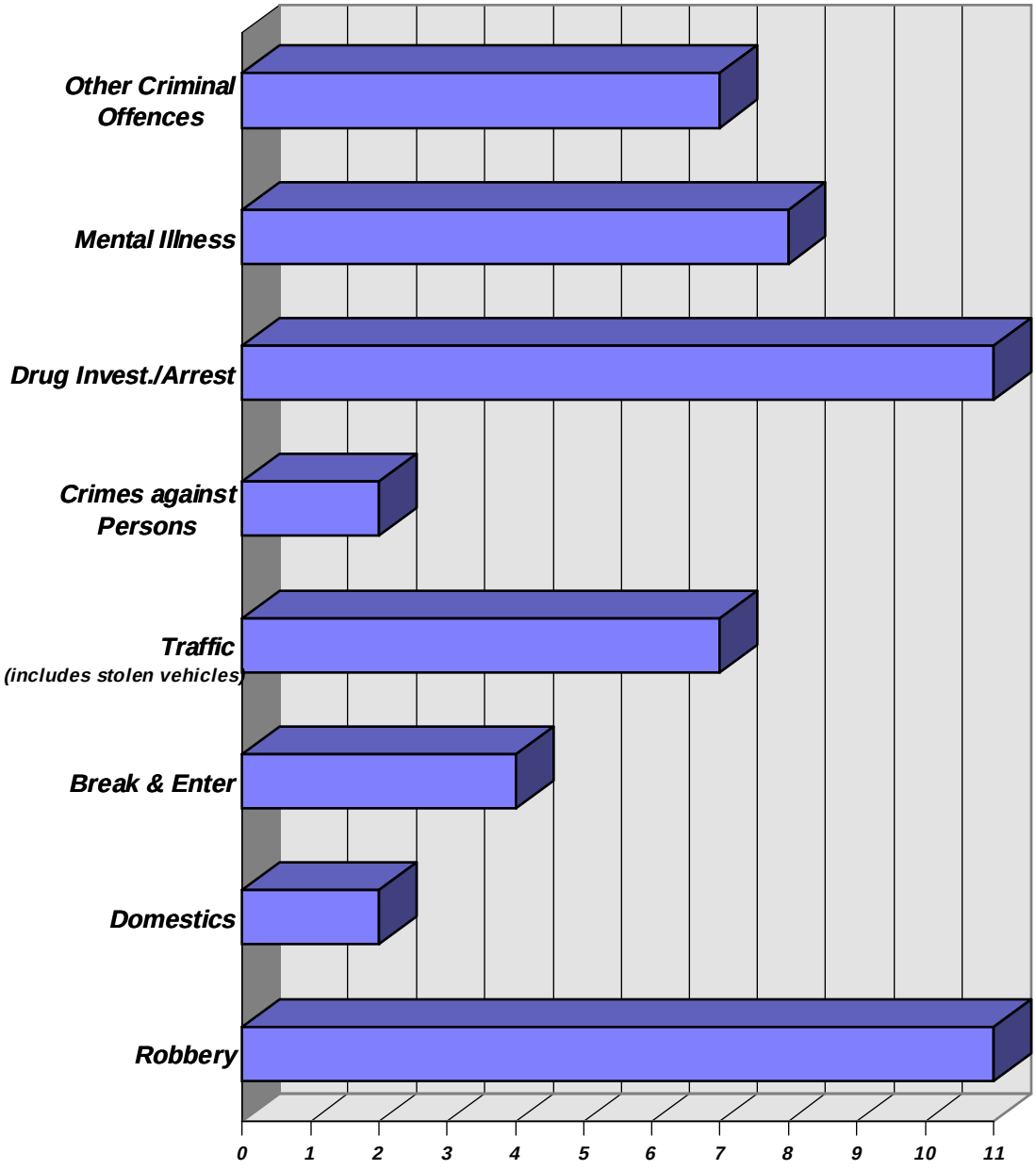
A study was conducted by the committee of officer involved shootings in Toronto during the past 10 years. A Service wide data base was developed to allow an analytical study of these incidents to be completed. Key findings have been analyzed and expressed graphically. There were a total of 52 shooting incidents involving a total of 55 persons wounded or killed by police.

Fatal vs. Non-Fatal Injuries:



During the 10 year period from January, 1987 to December 31st, 1997 there were 19 persons fatally shot by members of the Toronto Police Service. Thirty-six (36) persons suffered non-fatal injuries when struck by police bullets.

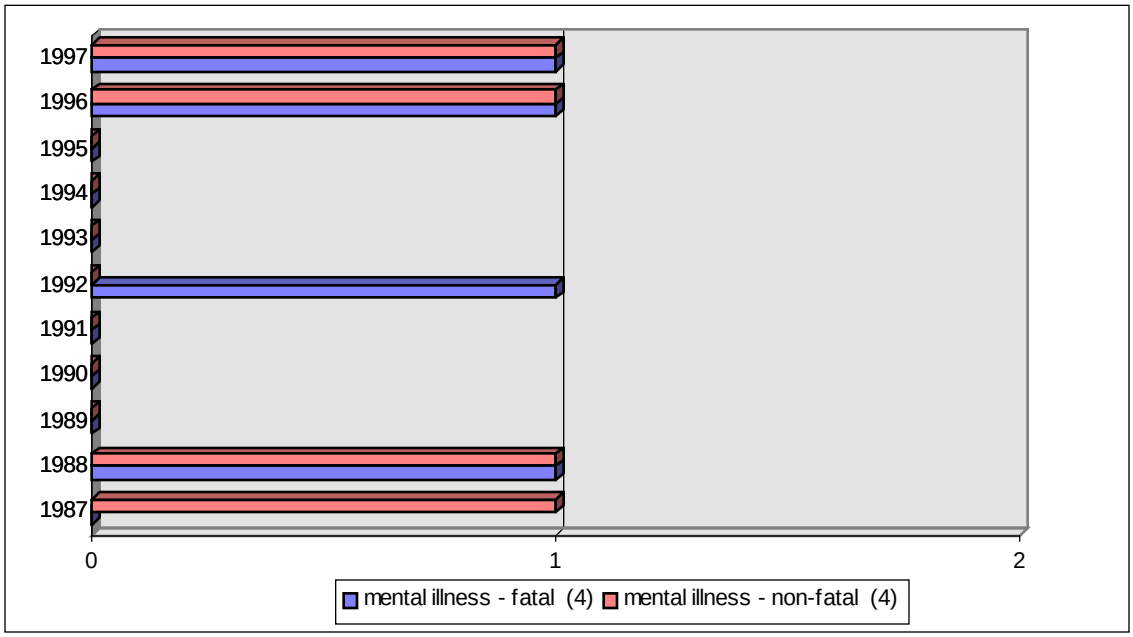
Situations Preceding Shootings - 1987 to December 31, 1997.



This graph depicts that over the 10 year period Robbery and Drug Investigations and Arrests represented the largest proportion of situations that officers were responding to preceding the actual shooting.

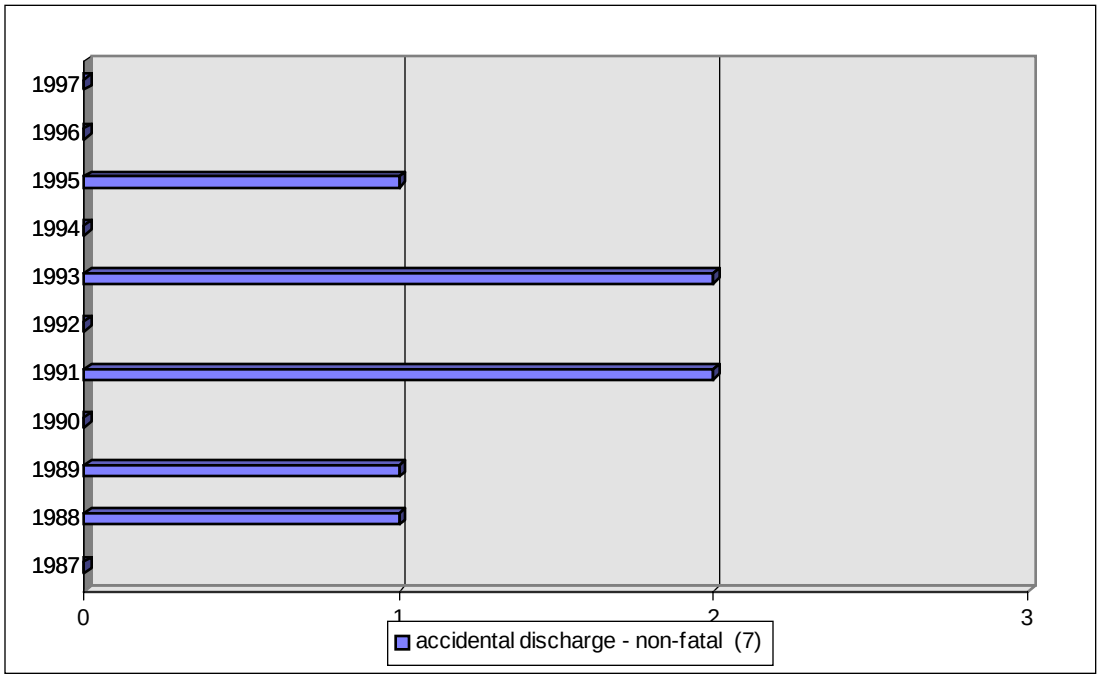
Officer Involved Shootings - 1987 to December 31, 1997

Involving Mental Illness:



This graph depicts that of the 55 persons involved in police shootings 8 were known to be suffering from mental illness. Four (4) were fatally shot and four (4) resulted in non-fatalities.

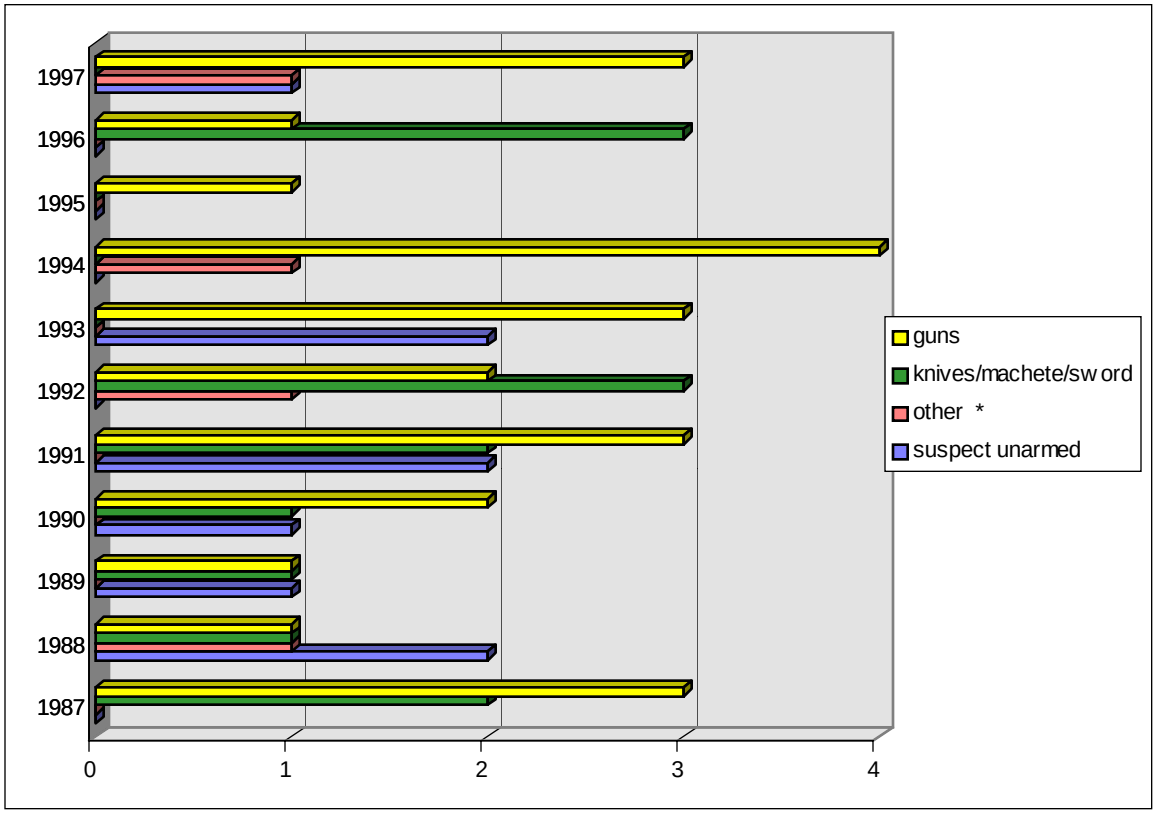
Accidental Discharge:



This graph depicts that of the 55 persons struck by police bullets seven (7) were the result of accidental discharges resulting in no fatalities.

Officer Involved Shootings - 1987 to December 31, 1997

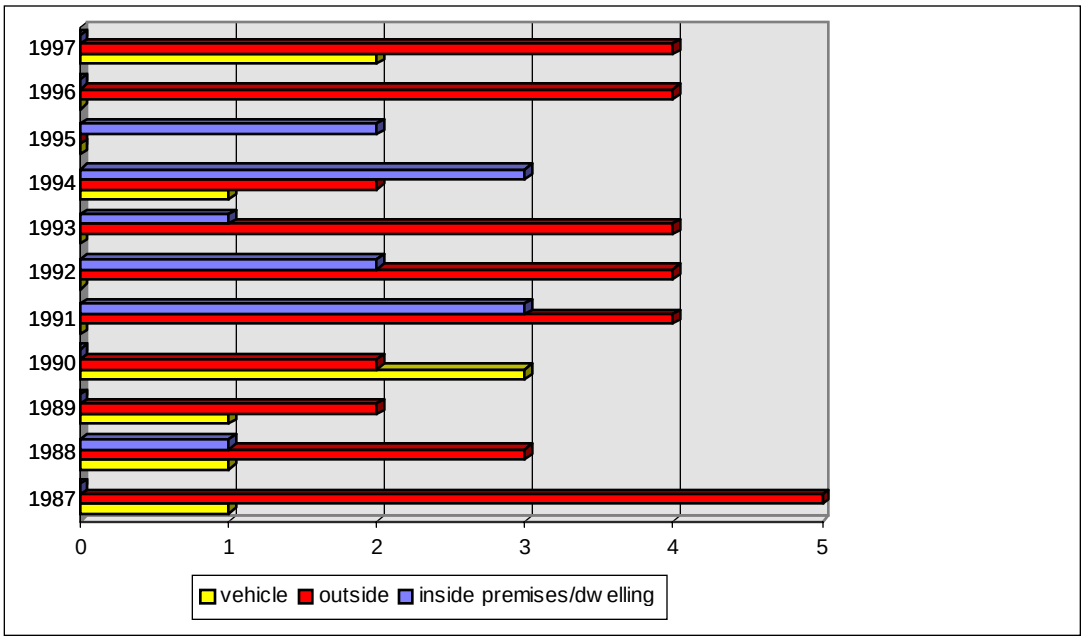
Types of Weapons Used by Suspects:



*This graph depicts that of the 52 incidents 43 cases involved weapons that were used and 9 cases where no weapons were involved. There was a total of 24 guns, 13 knives/machetes/swords, 2 hammers and 4 others * (includes rocks;wood;baseball bats;automobiles).*

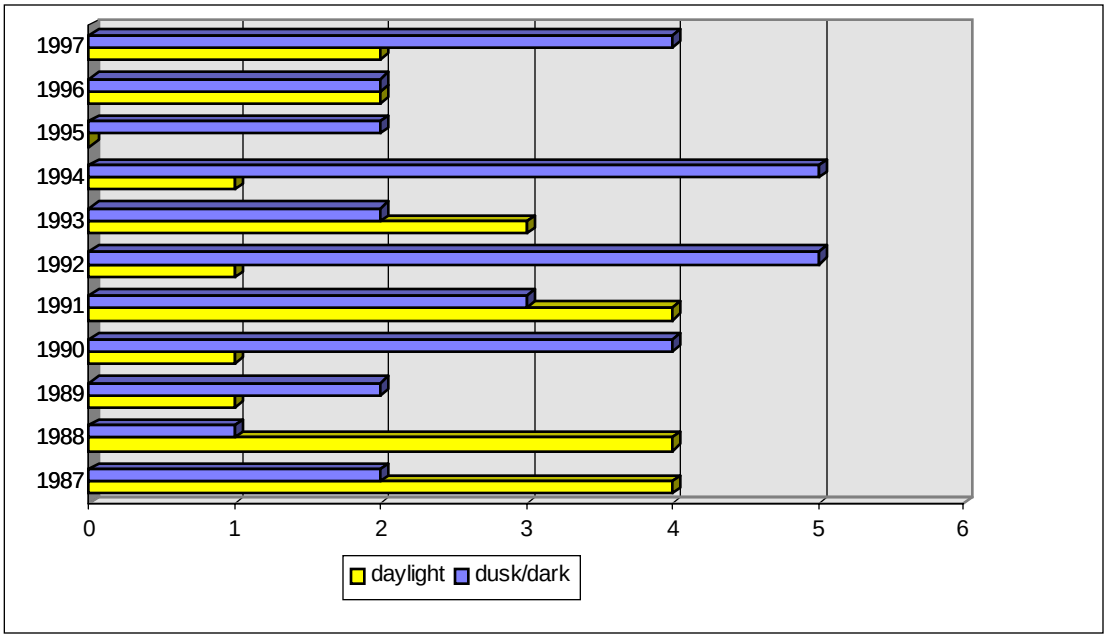
Officer Involved Shootings - 1987 to December 31, 1997

Location of Incidents:

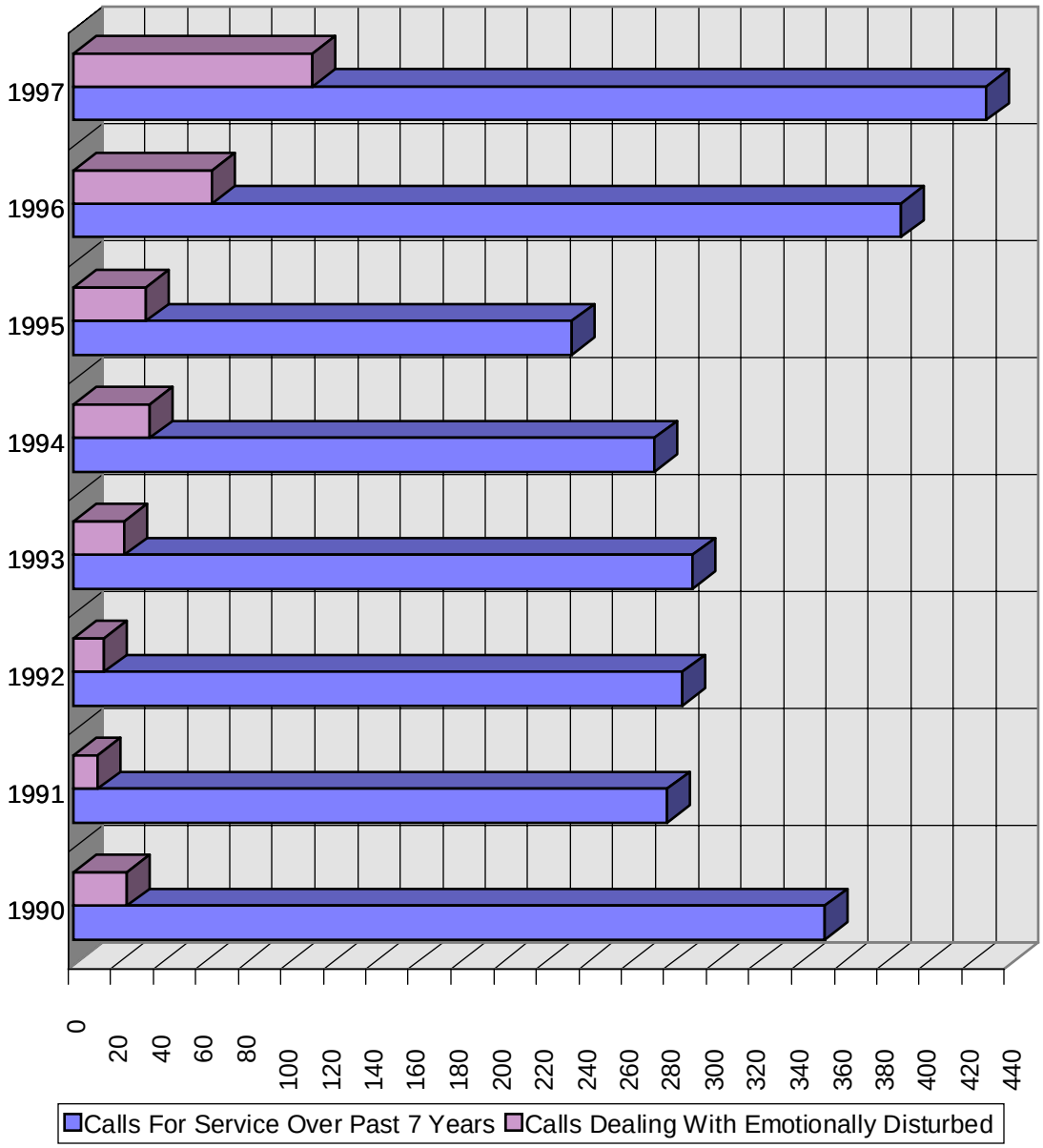


This graph depicts the locations where the shootings occurred. Of the fifty-five (55) shootings, thirty-four (34) occurred outside, twelve (12) occurred inside premises and the remaining nine (9) involved suspects in autos.

Time of Day:



This graph depicts the time of day defined as either daylight or dusk/dark. Of the fifty-five (55) shootings twenty-three (23) occurred in daylight hours and thirty-two (32) occurred at dusk/dark.



This graph illustrates that during the seven (7) year period from January 1990 to December 31st, 1997 the Emergency Task Force attended 2,534 calls for service of which 321 (12.7%) dealt with the emotionally disturbed. The Emergency Task Force used less lethal force to subdue these suspects. There has been a significant increase in calls for service for the Emergency Task Force dealing with the emotionally disturbed in 1997.

USE OF FORCE COMMITTEE

Final Report

POLICE RELATED SHOOTING STATISTICS SURVEYED BY CITY

For the purpose of analysis, a number of Canadian and American police agencies were contacted and certain raw data pertaining to police related shootings were accumulated.[1]

The information listed below was gathered in four specific categories:

- the police agency's strength of sworn officers,
- that city's population
- a basic breakdown of the results of the officer(s)' actions

Canadian Cities

CITY	Population (1996)	Service Strength	
		Non-Fatal	Fatal
Vancouver	522,400	1,065	8	8
Regina	185,800	296	1	0
Saskatoon	194,200	290	0	0
Edmonton (since 1990)*	648,700	1,080	9	0
Calgary	783,200	1,150	3	1
Winnipeg	640,100	1,135	7	0
Montreal	1,811,500	4,120	48	18
Halifax	114,600	390	1	4
Toronto	2,450,000	4,750	33	19

*Unless otherwise specified the shooting statistics are for the past 10 years

American Cities

CITY		Population	Service Strength	Fatal	Non-Fatal
Chicago	(Illinois)	3,000,000	13,000	372	100
Metro Dade[2]	(Florida)	2,000,000	3,000	74	25
Kansas City	(Missouri)	460,000	1,200	104	29
Phoenix[3]	(Arizona)	1,215,983	2,442	111	47
Newark[4]	(New Jersey)	250,000	1,500	61	17

[1] It is interesting to note that none of the police agencies contacted maintain a data base from which the information regarding police involved shootings could be easily extracted.

[2] 1988 to 1994

[3] 1988 to 1997

[4] 1988 to 1996