

Part 10

Recommendations

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A. INTRODUCTION

The Terms of Reference established by the provincial government to guide this Commission's work (set out in Appendix A) direct me to make recommendations respecting the appropriate use of conducted energy weapons by police officers, sheriffs, and correctional officers, and respecting appropriate training and re-training of such persons. I will address these issues in this part.

B. GUIDING PRINCIPLES

In the preceding parts I have summarized the voluminous materials that the Commission has accumulated relating to use of conducted energy weapons, including oral presentations by experts in a wide range of fields; the legal, regulatory, and policy framework within which these weapons are used; recruit and officer training; British Columbia's experience with use of these weapons; and the complex medical issues surrounding their use.

Before formulating my recommendations, I will set out several guiding principles that informed my analysis. I do so because I believe it is important that I, and those who act on my Report, bring a principled approach to these important issues. It is not an overstatement to say that people's lives depend on when and how conducted energy weapons are deployed. The public deserves to know not only what the rules are, but on what basis they were arrived at.

1. The police are subject to civilian authority

In Part 4, I quoted an excerpt from then-Justice Wally Oppal's 1994 *Policing in British Columbia* report, which bears repeating:

Thus in a system of responsible government, the police are ultimately accountable to civilian authority. This fundamental tenet of a liberal democracy distinguishes Canada from totalitarian or dictatorial states in which

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the police are either accountable only to the executive branch or, in extreme cases, to no other authority at all.

While police officers have a legal duty to carry out their tasks in accordance with standards set by the legislative and executive branches of government, there is an equally onerous duty on civilian authority to set such standards in the first instance. Ignoring this responsibility, or delegating it to the police, would be an abdication of a fundamental element of our liberal democratic system.

2. The police must be given appropriate tools to do their job

In my 50-year career as a lawyer and judge, I have seen a profound change in our society. With the proliferation of guns, drugs, and organized crime, a police officer's job has become far more demanding and much more dangerous. Those who answered the call to fight crime now find themselves spending more and more of their time mediating domestic disputes and dealing with people overwrought from serious addictions and mental illness.

We expect a lot of our police officers, and it is only reasonable that we should give them the best tools available to do their job. These "tools" include, but are certainly not limited to, weapons. Officers need the best training available, which these days must include learning how to respond appropriately to people who are emotionally disturbed or intoxicated by alcohol or drugs, or both.

3. The police should use the least force necessary, to manage the risk

The corollary is, of course, equally true. Because we give police officers extraordinary powers of search, arrest, and use of lethal force, we are entitled to expect that they will use these powers prudently and with restraint. The *Criminal Code* sets a time-honoured (albeit general) standard that allows an officer to use reasonable force, but punishes excessive force.

4. The use of force must be proportionate to the seriousness of the situation

Our society has, over the centuries, developed sophisticated systems of proportionality. For example, in sentencing offenders we say, “Let the punishment fit the crime.” The same notion of proportionality should hold true for a police officer’s use of force—it should be proportionate to the seriousness of the situation. Deciding what is proportionate has a subjective component, grounded in our society’s values, including fairness, personal safety, and respect for the individual.

C. DO WE HAVE ENOUGH INFORMATION ABOUT CONDUCTED ENERGY WEAPONS?

Notwithstanding the voluminous materials that this Commission has reviewed, including a constant stream of new medical studies, several presenters told me that in their view I should proceed cautiously. For example, the executive director of the BC Civil Liberties Association said, “Given the scientific uncertainty that exists today, and consistent with a cautionary approach, we actually have urged a moratorium on the use of these weapons.”²⁴¹

To the same effect, Hilary Homes of Amnesty International said:

Amnesty’s main recommendation continues to be to suspend all transfers and use of TASERS and other similar electroshock weapons pending a rigorous, independent and impartial study into the use and effects....

Why this continues to be our position after all these years comes back to the ongoing lack of knowledge around the use and effects of conducted energy devices such as TASERS on vulnerable groups. Central to human rights protection is looking out for the vulnerable in society without discrimination, whether we like them or not and even if they themselves are breaking the rules. When the available information is not definitive either way, we say it’s

241 Transcript, May 23, 2008, p. 34.

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better to pull the device from use. Study, re-evaluate, adapt, and then redeploy.²⁴²

Dr. Chambers, a Vancouver physician and epidemiologist who reviewed the medical literature at my request, stated during his presentation:²⁴³

But at the end of the day we have animal studies and volunteer studies that don't represent the real world and don't measure the magnitude of the harms or benefits.

We've talked about the relatively small sample sizes relative to the low event rates; the fact that there's no meta-analysis, no systematic abuse, no controlled trials on a population for which TASER use has been designed. There are anecdotal reports and police data have pointed to benefits. However, there's no standardized database or validated and published studies that accurately measure benefits that I could identify based on the current use....

So where are we right now? In my mind we have no idea of the relative risk of death in a large population due to TASER use. A significant risk could be being missed due to a lack of study in the real world. We really have no handle on what other injuries associated with TASER use might also be important—standing fractures, falling fractures, spinal cord injury, brain injury—as these are not being routinely followed in a systematic way.

When this Commission began, I had reservations about our current state of knowledge. However, I have learned a great deal from experts who made presentations during our public forums, and from our Commission's survey of the medical and scientific literature. At the same time, I agree with Dr. Chambers' assessment of the inadequacy of medical studies to date and, later in this part, I will discuss in more detail the need for further research. Notwithstanding the shortcomings identified by Dr. Chambers and others, I am satisfied that our understanding of conducted energy weapons, about some subjects' medical vulnerabilities, and about police best practices when dealing with emotionally disturbed people is growing year by year.

Do we as a society now know enough about these matters to make important decisions relating to the use of conducted energy weapons? In my judgement we do, although I

242 Transcript, May 15, 2008, pp. 27-28.

243 Transcript, May 23, 2008, p. 22.

would qualify that statement by saying that we should proceed with caution, as critical research is still missing.

There is, of course, much more to learn. That will take time, but I do not think that it would serve the public interest to postpone making fundamental decisions about the use of conducted energy weapons until we know more. We now know enough in order to proceed.

D. SHOULD BC ALLOW USE OF CONDUCTED ENERGY WEAPONS?

The threshold question which I must address is whether British Columbia should allow police officers and other law enforcement agencies to use conducted energy weapons?

Those opposed cite the more than 300 deaths in the United States, and at least 25 in Canada, that were “proximate to TASER use,” and argue that the weapon must be implicated to some degree in those deaths. Those in favour point to the weapon’s effectiveness in incapacitating violent subjects, and the hundreds of thousands of deployments which did not result in death or lasting injury.

Answering the posed question calls for an exercise in judgement, after reviewing the evidence that exists and weighing the risks and benefits. As I stated in Part 9, I am satisfied that conducted energy weapons do have the capacity (even in healthy adult subjects) to cause heart arrhythmia, which can lead to ventricular tachycardia and/or fibrillation which, if not treated immediately, can cause death, and that risk increases in certain circumstances, such as when the subject has certain pre-existing medical conditions or is in a fragile emotional state. However, it is equally clear that there are ways to ameliorate those risks, which I will discuss in more detail later in this part.

At the same time, there can be no doubt that in the great majority of deployments, the conducted energy weapon is effective. In many cases, merely displaying the weapon achieves compliance. At the other end of the spectrum, use of this weapon in lethal force situations may well have saved lives, although I recognize the difficulty in quantifying that benefit.

Conducted energy weapons have been a part of the police arsenal in British Columbia for almost a decade. While there may be much to argue about when it comes to *how* the weapon has been deployed in some factual circumstances, I am satisfied that, on balance, our society is better off with these weapons in use, than without them.

However, my support for their use is conditional. As I will discuss in more detail later in this part, the medical risks associated with the use of conducted energy weapons necessitate significant changes in when, and the way in which, they are deployed. If my recommendations on these matters are implemented, then I am confident that the public will be well served by including conducted energy weapons in the arsenal of our law enforcement agencies. If they are not, then I cannot support their use.

E. THRESHOLDS FOR USE

1. Seriousness of the matter

Are there some circumstances in which use of a conducted energy weapon should *never* be allowed? During our public forums, several presenters cited examples in support of this proposition:

- Deputy Chief Allen of the Transit Authority Police told me that its policy would not justify use of a conducted energy weapon against a fare evader; and
- Interim Chief Naughton of the Victoria Police Department said that he would be horrified if an officer used a conducted energy weapon on a jaywalker who was walking away from an officer.

To the contrary, the conducted energy weapon coordinator for the Vancouver Police Department told me that it does not matter whether an officer is arresting a subject for a *Liquor Act* violation, for shoplifting, for bank robbery, or for murder—“Our purpose for using it would be based on the behaviour of our subject, for whatever reason we are apprehending them or arresting them,” regardless of the underlying offence.²⁴⁴

244 Transcript, May 8, 2008, p. 51.

These statements suggest that even within the policing community there are widely divergent views on whether there are some circumstances in which use of a conducted energy weapon should *never* be allowed. I suspect that these varying views find their way into recruit training and into how the weapon is actually deployed on our streets, leading to inconsistent application among municipal police forces and other law enforcement agencies.

Resolving this issue requires a consideration of proportionality. On the one hand, we expect police officers to enforce the law, which includes everything from municipal bylaws to indictable offences under the *Criminal Code*. What is an officer to do, if a person found committing even a minor offence refuses to identify himself or herself? In such circumstances, the officer may be justified in detaining or arresting the person in order to confirm their identity. If the person tries to run away, is the officer justified in deploying a conducted energy weapon, given that running away falls within the definition of active resistance?

On the other hand, I am satisfied from the evidence before me that conducted energy weapons cause intense pain, incapacitate the subject, and have the capacity to cause the subject's death. Surely there must be some "subject matter" threshold, below which use of a conducted energy weapon cannot be justified. In terms of a subject's behaviours, both the National Use of Force Framework and the RCMP's Incident Management/Intervention Model set that threshold at "active resistance." However, both are silent on other important parameters, such as the seriousness of the matter. In my view, this is an important gap that must be filled.

In the same way that "the punishment must fit the crime," a police officer's use of force must be commensurate with the seriousness of the matter at issue. When a police chief is horrified at the thought of a jaywalker having a conducted energy weapon deployed against them, or the public is outraged at the allegation of similar treatment to transit fare evaders, these are valuable barometers of our society's commitment to proportionality.

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In my view, proportionality requires that a “subject matter” threshold be established, before use of a conducted energy weapon is justified. This is uncharted territory—as far as I know, no Canadian jurisdiction has addressed this issue.

In British Columbia, three levels of government enact laws that impose obligations on citizens. Municipalities pass bylaws, the provincial legislature enacts provincial statutes that are principally regulatory in nature, and the federal parliament enacts federal legislation that is either regulatory or creates crimes, which may be less serious (summary conviction) or more serious (indictable).

Given that the intended purpose of a conducted energy weapon is to inflict intense pain and cause incapacitation, and given its capacity to cause injury or death, I am satisfied that proportionality requires that a fairly high “subject matter” threshold be set. I would preclude deployment of a conducted energy weapon during enforcement of municipal bylaws, provincial laws, and federal regulatory laws, and restrict its use to truly criminal offences.

This will not unduly hamper the ability of police officers to do their job:

- Even if an officer is investigating a matter that falls below my proposed threshold, the subject’s response to the officer (*e.g.*, resisting the officer’s attempts to arrest the subject in order to establish the subject’s identity) may itself constitute a criminal offence (*e.g.*, assault, assault of a peace officer, or resisting or willfully obstructing a peace officer in the execution of his or her duty) that places the situation above my proposed threshold.
- An officer will still have recourse to all investigative measures and force options that were available before the advent of conducted energy weapons.

I am also satisfied that a similar “criminal offence” threshold should apply to sheriffs and correctional officers. The Commission’s empirical analysis of these agencies’ use of conducted energy weapons reveals that deployment occurs most frequently during a prisoner’s extraction from or placement into a cell, during a cell or prisoner search, or during a prisoner transfer. Applying the proportionality principle to these situations, I do not think that use of this weapon is justified if the subject’s only action is yelling or verbally abusive language. In my view, the same “criminal offence” threshold should apply to these officers as well.

Recommendation 1

I recommend that officers of provincially regulated law enforcement agencies be authorized to deploy a conducted energy weapon only in relation to enforcement of a federal criminal law.

2. The subject's behaviour

a. General rule

What threshold of subject behaviour should be required before an officer is justified in deploying a conducted energy weapon? At present, this weapon is classified in British Columbia as an intermediate weapon, and consequently the National Use of Force Framework permits use in the face of "active resistance." Most provincially regulated law enforcement agencies adopt this subject behaviour threshold.

With respect to the RCMP, its policy includes the conducted energy weapon as an intermediate weapon which, according to the Incident Management/Intervention Model, authorizes use in the face of "active resistance." However, its February 2009 policy amendment adds a further requirement that the subject's behaviour also poses "a threat to officer or public safety."

Although the term "active resistance" implies some form of active engagement with or against the officer, the definitions capture a broader range of conduct that belies any form of "resistance," let alone "active" resistance. They state:

The National Use of Force Framework

Active Resistance—the subject uses non-assaultive physical action to resist, or while resisting an officer's lawful direction. Examples would include pulling away to prevent or escape control, or overt movements such as walking toward, or away from an officer. Running away is another example of active resistance.²⁴⁵

RCMP's Incident Management/Intervention Model

Active Resistance—the person demonstrates resistance to control by the police officer through behaviours such as pulling away, pushing away or running away. This can include a situation where a police officer activates a police vehicle's

²⁴⁵ *Ibid.*, see footnote 58, p. 7.

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emergency equipment and the suspect fails to stop and attempts to evade apprehension by driving evasively.²⁴⁶

Under both these formulations, the focus is on the officer attempting to exercise control or direction over the subject, and on the subject walking toward the officer or pulling away, pushing away, or running away from the officer.

Police officers who made presentations during our public forums uniformly spoke in favour of retaining this subject behaviour threshold. However, in 2008 several public agencies published reports recommending that the threshold be raised from “active resistance” to “assaultive.” They include:

- Commission for Public Complaints Against the RCMP;
- House of Commons Standing Committee on Public Safety and National Security;
- Nova Scotia Advisory Panel to the Minister of Justice;
- Compliance Strategy Group (Kiedrowski Report) to the RCMP; and
- Saskatchewan Ombudsman.²⁴⁷

Both use-of-force frameworks include this “assaultive” level of subject behaviours, which is higher than “active resistance,” but lower than “grievous bodily harm or death” (which justifies the use of lethal force). They state:

National Use of Force Framework

Assaultive—the subject attempts to apply, or applies force to any person; attempts or threatens by an act or gesture, to apply force to another person, if he/she has, or causes that other person to believe upon reasonable grounds that he/she has, present ability to effect his/her purpose. Examples include kicking and punching, but may also include aggressive body language that signals an intent to assault.²⁴⁸

RCMP’s Incident Management/Intervention Model

Assaultive—the person attempts or threatens to apply force to anyone, *e.g.*, punching, kicking, clenching fists with intent to hurt or resists, threats of an

246 *Ibid.*, see footnote 63.

247 See Part 8 for summaries of these and several other reports.

248 *Ibid.*, see footnote 58, pp. 7-8.

assault. In the case of a person operating a vehicle, they attempt to collide with the police vehicle, another vehicle or a pedestrian.²⁴⁹

In my view, several matters must be considered before deciding what threshold of subject behaviour to recommend—the medical risks as we currently understand them, and proportionality, which necessitates a discussion of Canadian values.

i. Medical risks

I reviewed the medical evidence in Part 9. It may be useful to summarize here the main conclusions that I drew from that review:

- An external electrical current can overtake the human body's internal electrical system, resulting in ventricular capture, which may lead to ventricular tachycardia and, in some cases, ventricular fibrillation.
- There is evidence that the electrical current from a conducted energy weapon is capable of triggering ventricular capture.
- Although the results from animal studies should be approached with caution, it is safe to draw several conclusions from these studies that can be extrapolated to humans:
 - The greatest risk of ventricular fibrillation arises when the weapon's probes are vectored across the heart; and
 - The risk of ventricular fibrillation increases as the tips of the probes get closer to the wall of the heart.
- There is a short "window" during the heart's normal beat cycle (the T-wave) when the heart is most vulnerable to an external electrical shock. During this period, current pulses 25 or more times lower than at other times in the heart cycle may induce fibrillation.
- There are some circumstances in which the risk of ventricular fibrillation may increase, including:
 - *Heart disease*—people with cardiovascular disease are at a significantly higher risk of ventricular fibrillation, for several reasons—diseased hearts are much more vulnerable to arrhythmias, scar tissue interrupts the normal flow of electrical currents around the heart, and the shock and intense pain that a subject experiences may cause the heart to beat faster and more forcefully, placing greater strain on the heart wall, which is dangerous for people with

249 *Ibid.*, see footnote 63.

chronic high blood pressure or for people suffering from congestive heart failure.

- *Thin subjects*—people with an unusually thin chest skin-to-heart distance are at greater risk for ventricular fibrillation.
- *Subject's response*—even in healthy subjects, the pain, anxiety, and stress associated with conducted energy weapon use will stimulate the heart through an outpouring of the sympathetic nervous system and an outpouring of adrenaline. The heart beats faster, blood pressure increases, and the electrical properties of heart muscle cells are altered, making the heart more prone to developing dangerous arrhythmias.
- The intense muscle contractions resulting from the weapon's electrical current can lead to ventricular fibrillation due to two mechanisms:
 - The contractions may result in the buildup of lactic acid and carbon dioxide in the blood. This lowers the blood pH, thereby increasing acidity, which may lead to acidosis. This affects the electrolyte balance, especially potassium, and the electrical triggering of the heart, making the heart more susceptible to ventricular fibrillation.
 - The contractions can cause muscle damage (rhabdomyolysis), contributing to an increase in potassium levels that may electrically imbalance the heart.

Although ventricular fibrillation is the greatest concern, there are other medical risks associated with use of a conducted energy weapon, including:

- *Ventricular tachycardia*—electrical current can overtake the human body's internal electrical system, resulting in ventricular capture which may lead to ventricular tachycardia and which may also lead to ventricular fibrillation. This can happen at almost any part of the heartbeat cycle and, in the case of prolonged weapon discharge, can capture the heart for the duration of the discharge.
- *Myocardial infarction (heart attack)*—there is evidence that electrical current can cause coronary artery spasm, leading to myocardial infarction. Alternatively, stress and anxiety resulting from the weapon's discharge will inevitably increase the heart rate and result in a greater oxygen demand. Subjects with pre-existing coronary artery disease have a significantly reduced capacity to supply the heart muscle with oxygen-rich blood, which may lead to ischemia or, in severe cases, myocardial infarction.
- *Implanted pacemakers and defibrillators*—these devices deliver their electrical currents directly into the heart by way of metal leads running from

the devices into the heart muscles. Researchers have raised several concerns:

- The wires may conduct the current from the conducted energy weapon directly into the heart, in which case much less current would be required to trigger an arrhythmia.
- The weapon's current might override the device's current.
- The device might interpret the weapon's current as ventricular fibrillation, causing the defibrillator to emit an electrical current inappropriately.
- The weapon's current might damage the implanted device.
- **Blood pressure**—an increase in a subject's heart rate, leading to increased blood pressure, could cause an acute stroke, rupture a pre-existing aneurysm (an abnormal ballooning of the wall of an artery), or rupture the heart wall where coronary heart disease has created scar tissue.
- **Respiratory risks**—discharge of the weapon's probes into the upper torso (especially multiple deployments) could impair the subject's ability to breathe, due to the electrical current's induction of spasm into the intercostal muscles around the rib cage and the thoracic diaphragm. This could lead to acidosis, or to acute respiratory failure, which is immediately life-threatening.
- **Metabolic risks**—rhabdomyolysis (muscle damage that can be brought on by direct electrical damage to muscles) can lead to the release of muscle breakdown products into the bloodstream. If released at levels higher than the kidneys can clear, they can cause acute renal (kidney) failure.

When we examine the risk of ventricular fibrillation, the risks associated with implanted pacemakers or defibrillators, and the risk of respiratory failure, it appears to me that the single most important factor in creating the medical risk, or in exacerbating it, is deployment of the conducted energy weapon in probe mode, with the probes across the chest vectoring the heart. It is the combination of deployment in probe mode (where there is deeper penetration of the device's electrical current into the subject's body because of the greater spread between the probes and the imbedding of the probes up to 9 mm into the chest wall) and positioning of the probes (near the heart wall, intercostal muscles, or diaphragm) that are largely responsible for creating the risks of interference with the heart's normal rhythms or of interference with breathing.

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If it were practical to do so, I would recommend severe restrictions on the probe mode deployment of a conducted energy weapon in a subject's chest area because of the medical risks that have been identified, many of which would not be apparent to the officer on the scene. However, I have concluded that such a restriction would not be workable, for the following reason. Officers are already taught (properly, in my view) not to aim a conducted energy weapon at a subject's head, throat, or genital area (because of the associated medical risks), and to avoid the arms and legs (because of the risk that one or both of the probes will miss the subject, rendering the deployment ineffective). If the chest area were added to that list of prohibited target areas, the only remaining frontal target area would be the lower abdomen, but this is an unrealistically small target area, given the intensity and rapidly changing nature of many police-subject encounters. It would likely mean that officers would have to restrict their use to push-stun mode, or to probe mode on the subject's back.

Having said that, I remain concerned about the medical risks I have discussed. At the very least, recruit training should emphasize the medical risks that have been identified to date, and recruits should be counselled to deploy in probe mode in the chest area only as a last resort.

There are also several "indirect" medical risks associated with the use of conducted energy weapons. Most of these risks flow from:

- the intense pain, stress, and anxiety experienced by the subject—this can lead to ventricular fibrillation in healthy subjects or those with pre-existing heart conditions, to myocardial infarction, or to internal hemorrhaging due to rupture of an artery or the heart wall; or
- the intense muscle contractions caused by the weapon's electrical current—this can lead to ventricular fibrillation due to acidosis or rhabdomyolysis, or to renal failure due to rhabdomyolysis.

As I see it, these medical risks are only indirectly associated with the weapon's deployment. By that, I mean that deployment of the weapon may trigger a physiological response by the subject, which can then lead to a medical complication; or the weapon's electrical current may cause muscle contractions that then lead to other medical consequences. I am satisfied that these risks can be managed through

appropriate rules respecting multiple deployments of weapons, and through different approaches to de-escalating crisis situations involving emotionally disturbed subjects.

ii. Proportionality—An application of Canadian values

Quite apart from the medical risks that I have discussed, it seems to me that deciding what level of subject behaviour justifies deployment of a conducted energy weapon requires a consideration of proportionality. In other words, the use of force should be commensurate to the level of the subject's resistance. In deciding this issue, which is an essentially subjective exercise, I give much weight to what I call Canadian values, which in this context includes matters such as respect for the individual, the public's right to personal safety, and fairness. Until now, it has been left to law enforcement agencies to make their own determination of proportionality and they have, almost without exception, adopted a subject behaviour threshold of "active resistance."

If the definitions of "active resistance" quoted earlier had focused primarily on a subject's active confrontation with an officer, and had then added as a subordinate example running away from an officer, I might have concluded that "active resistance" is a reasonable threshold. However, the definitions do just the opposite—the principal focus of both formulations is pulling away from the officer.

In my view, that type of behaviour is not egregious enough to warrant deployment of a weapon that is designed to inflict intense pain and to totally incapacitate the subject. There are other devices, weapons, and force options available to police officers to adequately deal with these types of behaviours. It would embarrass me as a Canadian to watch a police officer deploy a conducted energy weapon against a subject, even one under investigation for a criminal offence, for merely walking or running away from the officer.

If "active resistance" is too low a threshold, then what level of subject behaviour would be more appropriate, with regard to the medical risks I have discussed and my sense of proportionality as viewed through a "Canadian values" lens? Should I recommend the RCMP's new "active resistance plus a threat to officer or public safety" level, the "assaultive" level found in the two use-of-force models, or perhaps

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even the higher “grievous bodily harm or death” level as suggested by several presenters? Or should I propose a different threshold falling somewhere within this range?

In considering this issue, I am mindful of the two competing values discussed earlier—the need to give the police appropriate tools to do their difficult job and the duty on officers to use the least force necessary in order to manage the risk. When then-Attorney General Ujjal Dosanjh approved use of conducted energy weapons in 1999, he did so on the understanding that they would be deployed sparingly: only in situations where the subject was assaultive or combative; or a threat to themselves, the police, or some third person. Since then, the threshold for use has dropped significantly, from assaultive behaviour to a very loosely drawn definition of active resistance.

In my view, it would be unrealistically restrictive to limit use of conducted energy weapons to “grievous bodily harm or death” situations. As I discussed earlier, officers are justified in using lethal force in such situations so, by definition, they would also be permitted to resort to any other force option as well, including conducted energy weapons.

That brings me to the RCMP’s new “active resistance plus threat” level, and to “assaultive” behaviour, which I will discuss in turn. As I discussed in Part 5, my interpretation of the RCMP’s February 2009 policy amendment is that deployment of a conducted energy weapon is now permitted against a subject who is exhibiting active resistance, but only if the subject’s behaviour poses a threat to officer or public safety. The RCMP’s Incident Management/Intervention Model states that a subject is actively resistant if “the person demonstrates resistance to control by the police officer through behaviours such as pulling away, pushing away or running away.” It is difficult to see how any of these behaviours can pose a threat to officer or public safety, so the new policy must contemplate some more dangerous level of subject behaviour. In the RCMP’s Incident Management/Intervention Model, the next higher level is “assaultive” which, as I will discuss below, applies when “the person attempts

or threatens to apply force to anyone.” However, the new policy is so generally worded that it would appear to catch behaviours that fall below the “assaultive” threshold. For example, it uses the term “threat” without adding any qualifier, such as the Incident Management/Intervention Model’s threat “to apply force.” Similarly, “public safety” is ambiguous. Assuming that it means a threat to the safety of a member of the public, the policy provides no guidance as to what type of threat must be present before deployment is justified. Further, the new policy does not state how serious or imminent the threat must be, and appears to authorize deployment based solely on the officer’s subjective opinion, without also requiring that there are reasonable grounds for doing so. In my view, the threshold for deployment contained in the RCMP’s new policy is too imprecise and, based on my interpretation of it, too low to justify deployment of a conducted energy weapon.

Turning now to a consideration of the “assaultive” level of subject behaviour, “assaultive” is the general range of subject behaviour that I believe constitutes an appropriate threshold. However, I have misgivings about the actual descriptions as found in the two use-of-force models. They state as follows:

National Use of Force Framework²⁵⁰

Assaultive—the subject attempts to apply, or applies force to any person; attempts or threatens by an act or gesture, to apply force to another person, if he/she has, or causes that other person to believe upon reasonable grounds that he/she has, present ability to effect his/her purpose. Examples include kicking and punching, but may also include aggressive body language that signals an intent to assault.

RCMP’s Incident Management/Intervention Model²⁵¹

Assaultive—the person attempts or threatens to apply force to anyone, *e.g.*, punching, kicking, clenching fists with intent to hurt or resists, threats of an assault. In the case of a person operating a vehicle, they attempt to collide with the police vehicle, another vehicle or a pedestrian.

If we “unbundle” the National Use of Force Framework definition, we find that “assaultive” includes four different types of behaviours:

250 *Ibid.*, see footnote 58, pp. 7-8.

251 *Ibid.*, see footnote 63.

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- ***Applying force to another person***—this approximates the criminal offence of assault under s. 265(1)(a) of the *Criminal Code*, which states, “A person commits an assault when without the consent of another person, he applies force intentionally to that other person, directly or indirectly.”
- ***Attempting to apply force to any person***—this approximates the separate criminal offence of attempted assault, under the combined effect of s. 265(1)(a) and s. 24 of the *Criminal Code*.
- ***Attempting or threatening by an act or gesture, to apply force to another person, if he/she has, or causes that other person to believe upon reasonable grounds that he/she has, present ability to effect his/her purpose***—this constitutes the criminal offence of assault under s. 265(1)(b) of the *Criminal Code*.
- ***Aggressive body language that signals an intent to assault***—this falls short of the criminal offence of assault, and may also fall short of an attempted assault because s. 24 of the *Criminal Code* distinguishes between attempts and mere preparation, the latter of which is too remote to constitute an attempt.

A similar unbundling of the RCMP’s Incident Management/Intervention Model reveals that its definition of “assaultive” includes the following behaviours:

- ***Attempting to apply force to anyone***—this approximates the criminal offence of attempted assault, as discussed above.
- ***Threatening to apply force to anyone***—this falls short of the criminal offence of assault under s. 265(1)(b), because it makes no reference to the subject having a present ability to effect his or her purpose.
- ***In the operation of a vehicle, attempting to collide with the police vehicle, another vehicle or a pedestrian***—this approximates the criminal offence of assault, by applying force indirectly.
- ***Clenching fists with intent to hurt, or threats of an assault***—these likely fall short of the criminal offence of assault or attempted assault.

It will be seen that those who drafted both frameworks were using the *Criminal Code* definition of common assault as the benchmark for “assaultive” behaviour. Common assault is defined as the intentional application of *any* force without consent. It would, for example, include laying a hand on an officer’s arm or patting the officer on the shoulder. However, both frameworks go further. They also justify use of a conducted energy weapon even when there has only been an attempted common assault, which does not require any touching of the officer and, more significantly,

they justify use of a conducted energy weapon when no criminal offence has been committed, such as by using “aggressive body language that signals an intent (but not an attempt) to assault,” or by “threatening to apply force” or by “clenching fists with intent to hurt.” To the same effect, the RCMP’s February 2009 policy amendment (“threat to officer or public safety”) justifies use of a conducted energy weapon in threatening situations, when the subject’s behaviour falls short of even attempted assault.

In my view, importing the *Criminal Code* standard of common assault sets too low a threshold—it authorizes the officer to use far more force than the force that is being used by the subject. Justifying deployment of a conducted energy weapon in the case of an attempted assault, or even behaviour that falls below any criminal conduct, is even less defensible.

I support in principle the approach of couching the subject behaviour threshold in *Criminal Code* terminology, because police officers are familiar with those categorizations, and judicial interpretation over the years gives such terms some certainty of meaning.

Having regard to the medical risks discussed above, and to my sense of proportionality, I believe that a threshold approximating the *Criminal Code* definition of assault causing bodily harm found in s. 267(b) would be appropriate. It requires demonstrably more dangerous behaviour than “assaultive” as defined by both use-of-force models, but adopting a “bodily harm” threshold is not so high as to be unreasonably onerous. “Bodily harm” is defined in s. 2 of the *Criminal Code* as “any hurt or injury to a person that interferes with the health or comfort of the person and that is more than merely transient or trifling in nature.”

In my view, the subject behaviour threshold should be met when the subject is causing bodily harm or the officer is satisfied, on reasonable grounds, that the subject’s behaviour will imminently cause bodily harm. There are several aspects of this proposed new threshold that warrant comment:

- *“is causing”*—it is not enough that the officer is aware that the subject “has caused” bodily harm, even moments ago. There must be a continuing risk.
- *“is satisfied on reasonable grounds”*—it is not enough to leave it up to each officer to decide, on a purely subjective basis, whether he or she will deploy the conducted energy weapon. In my view, that decision should also include an objective component. By that I mean that the officer must personally believe that deployment is necessary (the subjective element), but a disinterested third person who is aware of all the circumstances and is acting reasonably would also reach the same conclusion (the objective element). For the officer’s actions to be justified, both elements must be established.
- *“imminently”*—there must be some immediacy to the threat, and a present ability to cause bodily harm.

Recommendation 2

I recommend that officers of provincially regulated law enforcement agencies be prohibited from deploying a conducted energy weapon unless the subject’s behaviour meets one of the following thresholds:

- the subject is causing bodily harm; or
- the officer is satisfied, on reasonable grounds, that the subject’s behaviour will imminently cause bodily harm.

However, I would not want officers to conclude that, whenever this “causing bodily harm” threshold is met, they are automatically justified in deploying a conducted energy weapon. Both use-of-force models emphasize the need for officers to constantly reassess the situation and to use the least amount of intervention needed to manage the risk.

Recommendation 3

I recommend that, even if the threshold set out in Recommendation 2 is met, an officer be prohibited from deploying a conducted energy weapon unless the officer is satisfied, on reasonable grounds, that:

- no lesser force option has been, or will be, effective in eliminating the risk of bodily harm; and

- **de-escalation and/or crisis intervention techniques have not been or will not be effective in eliminating the risk of bodily harm.**

There is currently no outright prohibition on deployment of a conducted energy weapon against a subject who is handcuffed or restrained. The policies of most agencies are silent on this issue, while the policies of two other agencies specifically prohibit such use, “unless behaviour cannot be controlled otherwise.” This exception effectively authorizes such deployments, if the officer subjectively considers it necessary. I do not think it would be appropriate to recommend a policy banning deployment in such circumstances, because one can imagine scenarios in which a handcuffed or restrained subject could cause bodily harm, or be imminently capable of doing so. However, I would think that it would be a rare event that an officer would be justified, under my proposed subject behaviour threshold, to deploy a conducted energy weapon against a subject who is handcuffed or otherwise restrained.

iii. Emotionally disturbed people

In Part 9 I discussed at length the challenges that police officers face when confronted with emotionally disturbed people who display extreme behaviours, including violence, imperviousness to pain, superhuman strength and endurance, hyperthermia, sweating, and perceptual disturbances.

The unanimous view of mental health presenters was that the best practice is to de-escalate the agitation, which can best be achieved through the application of recognized crisis intervention techniques. Conversely, the worst possible response is to aggravate or escalate the crisis, such as by deploying a conducted energy weapon and/or using force to physically restrain the subject.²⁵² It is accepted that there may

252 Until recently, RCMP policy stated: “Individuals experiencing excited delirium require medical treatment which first requires that they be restrained. In considering intervention options for excited delirium cases, the use of the [conducted energy weapon] in a probe-mode deployment may be the most effective response to establish control.” However, the February 2009 policy amendments make no reference to “excited delirium.” Rather, “Acutely agitated or delirious persons may be at a high risk of death. If an individual is in an acutely agitated or delirious state, and whenever possible when responding

be some extreme circumstances, however rare, when crisis intervention techniques will not be effective in de-escalating the crisis. But even then, there are steps that officers can take to mitigate the risk.

Training in crisis intervention is relevant beyond the issue of conducted energy weapon use. Officers are, with increasing regularity, called upon to deal with emotionally disturbed people. The psychiatrists and other mental health professionals who made presentations during our public forums have persuaded me that the week-long crisis intervention training that they talked about should not be tied just to use of conducted energy weapons, but should be an essential part of recruit or in-service training.

Recommendation 4

I recommend that the Ministry of Public Safety and Solicitor General approve a curriculum for crisis intervention training comparable to that recommended by presenters at our public forums, and require:

- that it be incorporated without delay in recruit training for officers of provincially regulated law enforcement agencies; and
- that all currently serving officers of provincially regulated law enforcement agencies satisfactorily complete the training within a time frame established by the ministry.

Recommendation 5

I recommend that officers of provincially regulated law enforcement agencies, when dealing with emotionally disturbed people, be required to use de-escalation and/or crisis intervention techniques before deploying a conducted energy weapon, unless they are satisfied, on reasonable grounds, that such techniques will not be effective in eliminating the risk of bodily harm.

to reports of violent individuals, request the assistance of emergency medical services. If possible bring medical assistance to the scene" (Chapter 17.1, para. 3.1.4.).

b. Subject self-harm

In the preceding discussion, the focus has been on a subject's behaviour as directed at an officer or a member of the public. However, consideration must also be given to instances of subject self-harm. According to the Commission's empirical analysis of conducted energy weapon usage by municipal police departments, almost 20 percent of weapon deployments involved subjects who were threatening or attempting suicide or were otherwise engaged in self-injurious behaviour.

In my view there is a persuasive public policy justification for deploying a conducted energy weapon in some of these circumstances. Again, we need to articulate a threshold that takes into account the medical risks and a sense of proportionality. On balance, I believe that the same "causing bodily harm" threshold set out in Recommendation 2 is appropriate in cases of subject self-harm.

Recommendation 6

I recommend that officers of provincially regulated law enforcement agencies be prohibited from deploying a conducted energy weapon in the case of subject self-harm unless:

- **the subject is causing bodily harm to himself or herself; or**
- **the officer is satisfied, on reasonable grounds, that the subject's behaviour will imminently cause bodily harm to himself or herself.**

F. MULTIPLE DEPLOYMENTS

The Commission's empirical analysis of conducted energy weapon usage in British Columbia revealed that when the weapon was used in push-stun mode, it was discharged against a subject for more than one cycle in 45 percent of deployments, with the highest number of cycles against one subject being 14. When deployed in probe mode, the weapon was discharged against a subject for more than one cycle in 36 percent of cases, with the highest number of cycles against one subject being 10.

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The Commission's review of law enforcement agency policies showed that, when used in push-stun mode:

- Four agencies state that continuous applications for periods exceeding 15 to 20 seconds may pose an increased risk to the subject;
- Three agencies state that a second discharge should last only five seconds; and
- One agency acknowledges that continuous discharge may be hazardous to the subject, and cautions that unless situational factors require it, continuous discharge should not be applied.

When used in probe mode, there was a similar variation in policy direction:

- Five agencies require a situational reassessment after the initial failure of a first (or second) discharge;
- Seven agencies state that a second discharge may be appropriate if the first discharge does not control the subject;
- One agency states that if the subject has not been controlled after two discharges, the officer should consider that the weapon is ineffective and consider another appropriate force option to gain control; and
- No agencies specify a maximum number of discharges.

Training materials give each officer considerable discretion respecting multiple deployments. No agencies impose an absolute cap on the number of cycles permitted, although 10 agencies train that an officer should apply only the number of cycles reasonably necessary to allow them to safely approach and restrain the subject. Several agencies train that if a third cycle is required, officers should consider another force option.

The manufacturer's training materials acknowledge that the application of a conducted energy weapon is a physically stressful event, and officers should avoid extended or repeated applications where practicable. If circumstances require extended duration or repeated discharges, the operator should take care to observe the subject and provide breaks in the weapon stimulation when practicable. Officers should apply only the number of cycles reasonably necessary to allow them to safely restrain the subject. The manufacturer concedes in a product warning document that

the stress and exertion of extensively repeated, prolonged, or continuous applications may contribute to exhaustion, stress, and associated medical risks.

Animal studies have shown that repetitive deployment increases the risk of ventricular fibrillation, and Dr. John Webster told me that he was satisfied that multiple deployments against humans are more dangerous than a single deployment. Other presenters echoed this concern. As I discussed in Part 9, several public agencies have expressed concern that multiple deployments may impair respiration and may increase the risk of acidosis.

Having concluded that there are medical risks associated with a single deployment of a conducted energy weapon, I am similarly persuaded that multiple deployments increase at least some of these medical risks. While one cannot yet quantify this increased risk, I am satisfied that the risk increases as the number of deployments increases.

The challenge comes in deciding how to translate this concern into operational policy. I do not think it would be responsible to impose a “one discharge” rule, because there is clear evidence that in some circumstances a single five-second discharge does not incapacitate the subject. Similarly, I do not think it would be appropriate to impose some arbitrary maximum number of discharges.

At the same time, I do not think it is enough to leave it up to each officer to decide, on a purely subjective basis, whether he or she will deploy the weapon multiple times. In my view, that decision should also include an objective component. By that I mean that the officer must personally believe that a second or subsequent deployment is necessary (the subjective element), but a disinterested third person who is aware of all the circumstances and is acting reasonably would also reach the same conclusion (the objective element). For the officer’s actions to be justified, both elements must be established.

Beyond that, the issue of multiple deployments must be left to training, which should include a frank description of the medical risks associated with conducted energy weapon use, and how multiple deployments increase those risks.

Recommendation 7

I recommend that officers of provincially regulated law enforcement agencies be prohibited from discharging an electrical current from a conducted energy weapon on a subject for longer than five seconds, unless the officer is satisfied, on reasonable grounds, that:

- **the five-second discharge was not effective in eliminating the risk of bodily harm; and**
- **a further discharge will be effective in eliminating the risk of bodily harm.**

What this recommendation seeks to achieve is to force the officer to reassess the situation at the completion of a five-second discharge, before the officer discharges the weapon again. To put it another way, an officer is justified in discharging the weapon if the requirements set out in Recommendations 2 and 3 are met, but that justifies only a discharge of up to five seconds. No further discharge of the weapon is justified, unless the officer meets the requirement set out in Recommendation 7. Further, any subsequent discharge requires a new reassessment under Recommendation 7.

This recommendation is also intended to eliminate the practice of an officer holding the trigger down continuously, as the electrical current continues as long as the trigger remains depressed. The situation must be reassessed after every five-second discharge.

G. OTHER PRECAUTIONARY MEASURES

1. Requesting paramedic assistance

The Commission's empirical analysis showed that provincial ambulance attendants examined the subject at the scene in 33 percent of cases, although this percentage

varied widely (zero to 71 percent) among police departments. In 24 percent of cases, the subject suffered a weapon-related injury, although only 2 percent were more serious than welts from push-stun mode deployment, penetration of probe darts, cuts, or falls following incapacitation.

In some cases, it will be self-evident to the officer whether or not paramedic assistance should be requested. What is less clear are the other instances when a medical emergency has not yet occurred, but medical risks are present. In such cases, prudence dictates a request for paramedic assistance either before deployment of the conducted energy weapon, or as soon as practicable after deployment.

Recommendation 8

I recommend that paramedic assistance be requested in every medically high-risk situation, preferably before deployment of a conducted energy weapon or, if that is not feasible, then as soon as practicable thereafter. Medically high-risk situations include, but are not limited to:

- deployment in probe mode across the subject's chest;
- deployment in probe mode for longer than five seconds;
- deployment in any mode against:
 - an emotionally disturbed person;
 - an elderly person;
 - a person who the officer has reason to believe is pregnant; or
 - a person who the officer has reason to believe has a medical condition that may be worsened because of the deployment (*e.g.*, heart disease, implanted pacemaker or defibrillator, etc.).

2. Automated external defibrillators

Several presenters, including Drs. Tseng and Kerr, urged me to recommend that every police officer who carries a conducted energy weapon should also have, in the police cruiser, an automated external defibrillator so that if the subject goes into cardiac

arrest, the officer can defibrillate the subject before paramedic assistance arrives. I think that is sound advice.

I understand that these devices are now widely used in shopping malls, sporting events, and private homes. They require very little instruction, and cost about the same as or a little more than a conducted energy weapon.

Recommendation 9

I recommend that whenever a conducted energy weapon is assigned to an officer of a provincially regulated law enforcement agency, that the officer also have an automated external defibrillator readily available for use.

3. Distinguishing between push-stun and probe mode deployments

I have given consideration to whether the rules should be less onerous when a conducted energy weapon is used in push-stun mode as opposed to probe mode. I recognize that in push-stun mode the weapon causes intense pain but does not incapacitate the subject, and that many of the medical risks discussed in Part 9 result from use in probe mode.

Currently, the policies of almost all law enforcement agencies in British Columbia do not distinguish on this basis. In my view, that is an appropriate approach. I am satisfied that my proposed “bodily harm” subject behaviour threshold is proper, even if the weapon is deployed only in push-stun mode. Also, it is important to keep the deployment rules as simple as possible, to assist officers who must make split-second decisions in sometimes intense and rapidly changing circumstances.

4. Which officers should be assigned conducted energy weapons?

The practice varies within British Columbia and across Canada respecting which officers are assigned conducted energy weapons. As I noted in Part 8, several recent reports have made contradictory recommendations on this issue:

- In its June 2008 *Final Report*,²⁵³ the Commission for Public Complaints Against the RCMP supported the use of conducted energy weapons by specialized response teams without restriction, but otherwise the use of such weapons should be restricted as follows:
 - In urban settings, conducted energy weapons should be used only by officers with the rank of corporal or above; and
 - In rural settings, such weapons should be used by constables only if they have at least five years of operational experience.
- In February 2009, the Canadian Association of Chiefs of Police and the Canadian Police Association published a joint position document²⁵⁴ on conducted energy weapons, in which they expressed the view that all police officers should be authorized to carry a conducted energy weapon.

It is not clear, from the RCMP Commission's report or from the joint position document, what empirical evidence led those bodies to make the recommendations they did. Based on my Commission's research, and on presentations made during our public forums, I am not aware of any compelling need to impose restrictions on which officers should be permitted to carry a conducted energy weapon. Assuming that an officer is properly trained and certified before a weapon is assigned to the officer, and assuming that the officer deploys the weapon in accordance with the recommendations contained in this Report, the evidence before me does not justify limiting its assignment to certain categories of officers. While I do not want to understate the risks associated with use of a conducted energy weapon, those risks are significantly less than the risks associated with a service pistol. I would find it hard to justify recommending a restriction on the assignment of conducted energy weapons if no such restriction applies to the assignment of a service pistol.

At the same time, it would be equally inappropriate for me to recommend that *all* officers in a law enforcement agency be authorized to carry a conducted energy weapon. In my view, that is an operational decision properly left to each agency.

253 *RCMP Use of the Conducted Energy Weapon (CEW)—Final Report*, dated June 12, 2008; see http://www.cpc-cpp.gc.ca/prr/inv/cew-ai/cew_fin_rp-eng.aspx.

254 *Ibid.*, footnote 150.

H. PROVINCIAL REGULATION

Mr. Dosanjh, Q.C., told me that when he, as Attorney General, authorized British Columbia's municipal police departments in 1999 to use conducted energy weapons, it was on the understanding that the weapons would be used sparingly—only in situations where the subject was assaultive or combative, or a threat to themselves, the police, or some third person.

Notwithstanding that admirable intention, something has gone seriously wrong. No provincial legislation or regulation has specifically approved conducted energy weapons for use, approved specific models, set province-wide standards for when such weapons can (or cannot) be used, specified what training is required of operators or instructors, or required mandatory reporting of weapon usage. Individual police departments have been left to their own devices in developing policy around use of these weapons and, since 2006, developing training materials and programs for their recruits and officers.

This alarming abdication of leadership at the provincial level has led to the policing community, rather than the executive branch, establishing policy. This has resulted in a blurring of policy and training, inconsistencies in both policy and training among municipal police departments, an unhealthy dependence on the manufacturer respecting contentious policy issues, and a quite extraordinary "usage creep."

The province has unquestioned legislative authority under s. 74 of the *Police Act* to provide leadership in this area (respecting both use-of-force and officer training) and, under s. 40, the Director of Police Services is authorized to make recommendations to the minister. The executive branch should, without further delay, exercise this broad authority.

I repeat what I have said several times in this Report: it is the responsibility of the executive and legislative branches to set policy respecting the approval and use of conducted energy weapons, and for law enforcement agencies to train, and for officers to deploy those weapons, in accordance with that policy.

Recommendation 10

I recommend that the provincial government set province-wide standards relating to conducted energy weapons, including, but not necessarily limited to:

- which conducted energy weapon models are approved for use;
- the circumstances in which a conducted energy weapon may, or must not, be used;
- qualifications to begin training as an operator, instructor, or master trainer;
- the curriculum for operator, instructor, and master instructor training programs, including content, duration, pass/fail level, remedial training, and re-certification;
- mandatory reporting of each conducted energy weapon use, including what information must be reported and in what form; and
- periodic province-wide analysis of usage reports, with mechanisms to ensure that the results of such analysis inform policy development and training.

I. TRAINING AND RE-TRAINING

In Part 6, I identified the numerous deficiencies in training, many of which flow from the 2006 decision by the Justice Institute-Police Academy to withdraw from almost all aspects of conducted energy weapon training for recruits.

In my view there should be one entity that is responsible for training municipal police officers, Sheriff Services Division officers, and Corrections Branch officers in the use of conducted energy weapons, as an integral component of use-of-force training generally. The Justice Institute (Police Academy) is without question the appropriate body to perform this function.

I am not suggesting that all law enforcement agencies be required by law to assign conducted energy weapons to all its officers. That is an operational decision for each agency. If an individual agency chooses not to assign these weapons to all its officers, then the question arises whether that agency may insist that its recruits not receive

conducted energy weapon training at the Police Academy. I cannot answer that question in a vacuum. It will depend on the extent to which this aspect of use-of-force training is integrated into use-of-force training generally. That is a matter best left to the Police Academy.

If my recommendation respecting the role of the provincial government is accepted, with the result that provincial policies focus on *when* conducted energy weapons are used and training focuses on *how* they are used, then trainers' reliance on the manufacturer's training materials may cease to be a problem. Those materials should logically be a primary training resource, given that the manufacturer has designed and built the weapon, knows how it works, and how it should be cared for.

While I do not propose to make detailed recommendations respecting the content of training and re-training programs, I do want to emphasize the importance of providing clear instruction respecting the medical risks associated with conducted energy weapon use, especially as they relate to deployments across the chest, multiple deployments, and dealing with emotionally disturbed subjects. More generally, I am concerned about the mentality or attitude that officers have about these weapons. If they are trained that conducted energy weapons are just another non-lethal weapon, they will fail to appreciate the serious medical risks inherent in their use. However, if officers are trained that these weapons are capable of causing death or other specified medical conditions, then they will be more likely to treat any negative post-discharge outcome as a medical emergency and take appropriate resuscitative measures, such as cardiopulmonary resuscitation, automatic external defibrillator, or call for paramedic assistance.

Recommendation 11

I recommend that the Police Academy be responsible for training officers of provincially regulated law enforcement agencies in the use of conducted energy weapons, as an integral component of use-of-force training generally, and that training be conducted in accordance with the policies established by the provincial

government, taking into consideration the medical risks discussed in this Report.

I will comment on one aspect of training that troubles me—voluntary exposure to the electrical current of a conducted energy weapon during training and re-training. As I noted in Part 6, the manufacturer strongly recommends (but does not require) voluntary exposure during its training programs. In British Columbia, no law enforcement agency requires that trainees be exposed. Seven agencies permit exposure if the trainee volunteers, while seven others prohibit exposure during training, even with trainee consent.

The only rationale I can see for voluntary exposure during training is so that recruits will have a sense of how painful the weapon’s electrical current is, thereby encouraging prudence in its use. That unconvincing rationale must be weighed against several risks. First, there are medical risks associated with use of the weapon, as I discussed in Part 9, and those risks do not go away when the manufacturer’s suggested protocol for voluntary exposure is followed. Second, the term “voluntary” exposure is a misnomer, as peer pressure will inevitably cause some recruits to give their consent even though they would prefer not to receive an exposure. In my view, the risks far outweigh the benefits, and I do not support voluntary exposure during training or re-training.

Recommendation 12

I recommend that the province’s standards relating to the curriculum for operator, instructor, and master instructor training and re-training prohibit a trainer’s or trainee’s exposure to the electrical current of a conducted energy weapon.

J. CERTIFICATION AND TESTING OF CONDUCTED ENERGY WEAPONS

1. Certification

Conducted energy weapons are unique within the panoply of intermediate weapons, given that they transmit an electrical current and are designed to achieve control over

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a subject either through pain compliance or neuromuscular incapacitation. As I discussed in Part 9, I am satisfied that these weapons have the capacity to cause death to a human subject, through a variety of mechanisms. While these medical risks may be mitigated, some risks remain.

Although Canadian law enforcement agencies currently use only two models of conducted energy weapons, both produced by the same manufacturer, that manufacturer produces or is developing other models which may have significantly different characteristics, and thus risks. For example, its proposed self-contained XREP will fire a wireless projectile from a 12-gauge shotgun, delivering the same neuromuscular incapacitation as the handheld X26, but for 20 seconds instead of five seconds. Being wireless, it would appear that the operator would have no way of terminating the electrical current during the 20-second discharge.

Other manufacturers offer a variety of conducted energy weapons, including electrified batons, electrified riot shields, and electrified waist or leg cuffs for prisoner transport.

As I reported in Part 4, presenters observed that there are international standards for products such as electrical fences that must be complied with before they can be sold in Canada, yet no such standards exist for conducted energy weapons. In 2006, the Canadian Police Research Centre expressed concern that “there are no known, scientifically tested, independently verified, and globally accepted [conducted energy weapon] safety parameters,” which means that law enforcement agencies are completely reliant on manufacturer claims regarding the safety of their products.

It would appear that the definition of “restricted products” under the federal *Hazardous Products Act* is broad enough to include conducted energy weapons, which means that the federal Governor in Council may make regulations prescribing the circumstances and conditions under which they may be imported into, and sold in, Canada. By adding conducted energy weapons to the list of restricted products, the federal government could require that they undergo safety testing or product standards certification before being imported or sold.

Recommendation 13

I recommend that the Attorney General ask the federal minister responsible for administration of the *Hazardous Products Act*:

- to add conducted energy weapons to the schedule of restricted products under that Act; and
- to make regulations prescribing the circumstances and conditions under which such weapons may be imported into, and sold in, Canada.

2. Periodic testing

The recent testing of 44 conducted energy weapons, in a study commissioned by the CBC, points to a risk that such weapons are capable of transmitting an electrical current greater than that specified by the manufacturer, which will increase the pain the subject experiences and may increase medical risks.

The resulting decision by numerous law enforcement agencies across the country to remove some of their weapons from service for testing was, in my view, prudent. As I noted earlier in this Report, we all should be concerned about anything that erodes public confidence in our law enforcement agencies.

The Commission discovered that no BC law enforcement agency has policies respecting routine weapon calibration or testing of output.

From the material I have reviewed, I am satisfied that the area of greatest concern relates to the amount of current discharged by a weapon. Given that the X26 model emits 19 pulses each second, and that each pulse is supposed to last for only 100 microseconds (100 millionths of a second), there are at least three manufacturer's specifications that should be periodically tested:

- the number of pulses per second;
- the duration of each pulse; and
- the maximum current during each pulse.

On this issue, Mr. Reilly told me that the manufacturer's specifications state that the X26's current is "2.1 milliamps average" (*i.e.*, 2.1 thousandths of an ampere).

Mr. Reilly, on the other hand, stated that the X26 has a peak output current of 3 amperes. He explained the difference—his number measures the actual amperage during one of these very short pulses that lasts only 100 millionths of a second, whereas the manufacturer’s number is an average over the total time period, during and between pulses. I agree with his assessment that the actual amperage during one of these very short pulses is the key electrical current that must be measured.

It is equally important, for public confidence, that the periodic testing of conducted energy weapons be conducted according to a testing protocol approved by an independent body. If the federal government approves specific models for use in Canada, then periodic testing could be conducted against the manufacturer’s specifications. In the absence of federal endorsement, then the independent body approving the testing protocol would have to articulate the specifications that the weapon must meet.

Recommendation 14

I recommend that every conducted energy weapon used by officers of provincially regulated law enforcement agencies be periodically tested for electrical output, according to a testing protocol approved by an independent body and according to a schedule established by the Ministry of Public Safety and Solicitor General, and that the test include, but not necessarily be limited to:

- the number of pulses per second;
- the duration of each pulse; and
- the maximum current during each pulse.

3. Testing after a serious injury or death

No provincially regulated law enforcement agency in British Columbia has policies respecting weapon calibration or testing of output following a serious injury or death proximate to weapon use.

The RCMP’s February 2009 policy amendment now requires independent testing of a weapon at a designated testing facility in three circumstances:

- following an incident involving injury requiring medical treatment or death proximal to use of the weapon;
- when a weapon was ineffective or malfunctioned; and
- when a specified senior officer is of the opinion that testing is warranted in the circumstances, including a desire to address any concerns about the performance of a weapon or the circumstances or impacts of its use.

Given the medical risks associated with a conducted energy weapon's electrical current, and given the apparent capacity of a weapon to discharge a current greater than that specified by the manufacturer, I am satisfied that whenever there is a serious injury or death proximate to weapon use, the weapon should be withdrawn from service and its electrical output should be tested.

Recommendation 15

I recommend that whenever there is a serious injury or death proximate to use of a conducted energy weapon by an officer of a provincially regulated law enforcement agency, the weapon be withdrawn from service and its electrical output be tested in accordance with, and for the matters referred to in, Recommendation 14.

K. REPORTING ON CONDUCTED ENERGY WEAPON USE

During his presentation at our public forums, the provincial Director of Police Services told me²⁵⁵ that the ministry currently collects, annually, high-level data from municipal police departments on use-of-force tools. However, there is currently no mechanism in place to collect use-of-force data specific to conducted energy weapons that can be used to effect good policy development and training standards. The ministry is currently working on improving use-of-force aggregate data-collection methods for the province, through the development of an electronic template for incident-based use-of-force data in the PRIME (Police Records Information Management Environment) system. He did not indicate when these improved data collection initiatives would be operational.

²⁵⁵ Transcript, May 7, 2008, pp. 59-61.

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In the meantime, each municipal police department sets its own policy on what information is recorded respecting use of conducted energy weapons, and what use is made of this information. As I discussed in Part 5 of this Report, all agencies require that a use-of-force or analogous written report be completed after a conducted energy weapon has been deployed but, beyond that, policies vary:

- Only six agencies specify that a use-of-force report must be completed even if the weapon is used in display mode only;
- Three agencies specify the narrative content of use-of-force reports;
- Six agencies require that the data be downloaded from the weapon and be attached to the use-of-force report;
- Almost all agencies require that a completed use-of-force report be submitted to a supervisor, but there is no consistency in what the supervisor does with the reports;
- Five agencies require that the “Subject Behaviour-Officer Response” template report in PRIME be completed;
- Only one agency requires that the firearms officer maintain a software program detailing all operational deployments; and
- Six agencies specify the circumstances warranting a review of general use-of-force reports.

As I discussed in Part 7, Commission researchers sent requests to all provincially regulated law enforcement agencies for copies of all conducted energy weapon incident reports. For some agencies, these requests posed a significant challenge in identifying and retrieving incident reports. When reports were retrieved, it was equally troubling that attempts to match incident reports to civilian complaints indicated that there has been significant under-reporting of conducted energy weapon use, perhaps by as much as 50 percent.

In my view, procedures must be implemented (and enforced), to eliminate concerns about under-reporting. For example, whenever a conducted energy weapon and/or a probe cartridge is issued to an officer, the officer should be required to sign for it. In addition, there should be regular data downloads of every conducted energy weapon, with a matching of the data relating to each deployment and the related use-of-force incident report. However, I do not think that simply enacting policies on these

matters is sufficient. Almost all agencies already require that a completed use-of-force report be submitted to a supervisor, and six agencies already require that the data be downloaded from the weapon and be attached to the use-of-force report, yet the Commission found evidence of significant under-reporting. That problem can only be remedied by requiring each provincially regulated law enforcement agency to assign responsibility for these tasks to one or more specified employees.

The bottom line is that we have a very incomplete picture of how often and in what circumstances these weapons are being used, with little evidence that incident usage data is being used to improve policy, determine compliance with policy, or enhance training.

Based on the information before me, I conclude that there has been an absence of provincial leadership in:

- establishing province-wide standards for reporting on conducted energy weapon usage;
- developing a province-wide reporting system; and
- using the data from such reports to inform provincial policy respecting weapon use and to inform training.

Conducted energy weapons are, and will continue to be, a controversial use-of-force option because of their capacity to cause intense pain and incapacitation, and because of the medical risks associated with their use. Thus, it is imperative that important information about each incident be reported and recorded, and that this information be used to drive improvements to policy and training. Given the significant public interest in these weapons, it is equally important that detailed information about conducted energy weapon usage be published regularly.²⁵⁶

²⁵⁶ During our public forums, Staff Superintendent Michael Federico of the Toronto Police Service told me that the police service must report annually, in writing, to the Toronto Police Services Board respecting conducted energy weapon usage. The report includes the number and circumstances of weapon use, injuries and deaths, public complaints, civil law suits, investigations, officer training, deployment, and effectiveness. Board members ask questions and members of the public are invited to comment. See Transcript, May 14, 2008, pp. 61-93.

I recognize that developing a comprehensive reporting system will be complex and will take time. It may require a separate reporting protocol, or it may be possible to incorporate conducted energy weapon reporting into general use-of-force reports. Care will be required to capture all the information needed to properly inform policy development and training, without making it unreasonably onerous on officers. It is hoped that consistency can be achieved with the RCMP (in its capacity as British Columbia's provincial police force) in what incident data is recorded, so that meaningful comparative analyses can be made. For all these reasons, it would be inappropriate for me to attempt to make detailed recommendations about the new reporting system. I will restrict my recommendations to the general goals, about which I sense widespread consensus.

Recommendation 16

I recommend that the provincial Ministry of Public Safety and Solicitor General, without delay:

- develop a province-wide conducted energy weapon incident report form that will capture enough information to permit the type of analysis undertaken by this Commission, as reported in Part 7 of this Report;
- require that the report form be completed whenever an officer of a provincially regulated law enforcement agency deploys a conducted energy weapon, even if deployment is limited to display mode only;
- develop a province-wide electronic system for the reporting and analysis of conducted energy weapon incidents;
- require that every completed report form be forwarded without delay to the ministry, and that the data on the report form be entered into the province-wide electronic system;
- review reported incidents, at least quarterly, for the purposes of informing the development of policy and training;
- publish, at least annually, a detailed report on conducted energy weapon usage by provincially regulated law enforcement agencies; and
- require each provincially regulated law enforcement agency:

- to implement a “sign out” policy whenever a conducted energy weapon and/or a probe cartridge is issued to an officer;
- to designate a specific employee to download the data from every conducted energy weapon at least once every month (matching the data relating to each deployment against the related incident report), and to report any discrepancies to that employee’s supervisor;
- to review the use of conducted energy weapons by its own officers at least quarterly, to determine compliance with policy; and
- to report at least annually, to the responsible provincial minister, and in the case of a municipal police department to the police board, on the agency’s use of its conducted energy weapons.

I recognize that no one likes to fill out reports, and I commend officers who would rather be on the beat than completing forms. However, officers already must complete use-of-force incident reports. The purpose of this recommendation is not to make officers’ lives more difficult, but to standardize reporting and to provide law enforcement agencies and policy-makers with more complete and accurate information.

L. THE NEED FOR FURTHER RESEARCH

Many have proposed additional research into conducted energy weapons. Specific suggestions can be found in many of the reports I summarized in Part 8, in the presentations made during our public forums and in research papers prepared by Commission staff. Implicit in many of these proposals is a frustration that there has been, to date, an inordinate dependence on anecdotal and vendor-supported research and studies. I share those concerns.

Conducted energy weapons were introduced into use in British Columbia based on modest field testing (nine discharges by one police department over six months),

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reliance upon equally modest medical research and no federal safety approval. This process is contrasted with the rigorous testing required of medical devices and prescription drugs before they are approved for sale in Canada. In the medical field, the presumption is that a new device or drug is not approved until the manufacturer satisfies federal regulatory authorities that it is safe. With conducted energy weapons, just the opposite occurred. They were approved for use based on a presumption that they were safe, and will continue to be used until they are shown to be unsafe.

After a decade of widespread use by law enforcement agencies across the country, there is little value in closing the barn door—the horse is long gone. But there are things that can be done to remedy this topsy-turvy history. We can, albeit late in the day, identify the risks associated with use of these weapons and press ahead with credible research.

Based on the Commission's review of the medical research that I summarized in Part 9, and my review of Dr. Chambers' advice and of proposals made by other presenters and in many reports, I suggest that the types of future research that will be most valuable will be:

- *Independent*—there is a natural tendency to discount studies that are conducted or funded by parties that are perceived to have an interest in the outcome. While the law-enforcement community and vendors are entitled to pursue whatever research activities they desire, policy-makers will legitimately place more confidence in research that is independent of any such interests.
- *Science-based*—it is essential that research is based on data, not anecdote, and that sound methodological standards are followed.
- *Large*—given that much of the research needs to focus on the *capacity* of a conducted energy weapon to cause harm and on attempting to quantify that risk, it is essential that large study samples be used. As I noted in Part 9, there is limited value to research that finds that a particular medical reaction did not occur in a case study involving several dozen subjects, when the risk of such a reaction occurring is in the range of 1:1,000. Implementation of a province-wide conducted energy weapon-incident database, as I proposed in the preceding section, is a prerequisite to these types of studies.

- *Real-life studies*—while I understand the reasons behind using animals for some studies, there is an understandable reluctance to extrapolate results from such studies to humans—researchers themselves acknowledge this limitation. Empirical studies using human subjects are preferred but even then, it is important to use subjects who share characteristics with those who are likely to be the subjects of conducted energy weapon discharges in real life.
- *National scope*—while several reports have called for a specific agency or province to undertake further research, it would be preferable to take on this work nationally, so that it is done once, comprehensively and economically.

As I noted earlier, I am satisfied from the Commission’s review of the North American and international medical research undertaken to date that conducted energy weapons have the capacity to cause serious injury and death. That being so, it seems to me that the most fruitful focus of future research would be to attempt to:

- quantify that risk;
- identify the highest-risk subjects; and
- identify the highest-risk external circumstances.

The results of research into those issues should feed into “best practices”—in other words, using research results to inform policy and training. Several examples come to mind:

- The medical evidence reviewed in Part 9 suggests that the most serious medical risks arise when a conducted energy weapon is deployed in probe mode across the subject’s chest, vectoring the heart. If so, how should that finding influence the development of policy and recruit training?
- The controversy around “excited delirium” distracts us from the real-life challenge of advising officers how to respond to emotionally disturbed people. Once we have a clear understanding of the underlying medical condition and the associated medical risks, we will be in a much better position to develop effective responses that bring the situation under control but do not, in the process, aggravate the medical risks.
- As we understand more about what physiological changes occur in a subject’s body as a result of a weapon’s electrical discharge (especially in the case of multiple deployments), we may be able to give officers more guidance respecting how, and how not, to restrain the subject.

Recommendation 17

I recommend that the Minister of Public Safety and Solicitor General encourage the minister's federal, provincial, and territorial counterparts to develop and fund a national research program for conducted energy weapons that will promote independent, science-based, and peer-reviewed research that attaches priority to:

- quantifying the medical risks associated with conducted energy weapon use;
- identifying the highest-risk subjects;
- identifying the highest-risk external circumstances; and
- developing recommendations for best practices, including but not limited to:
 - deployments in probe mode across the subject's chest;
 - multiple deployments; and
 - emotionally disturbed people.

M. FUTURE REVIEW

My review of conducted energy weapons shows that while we know a great deal about these weapons and their impact on the human body, there is much that we do not know. Medical research is ongoing, and a few years from now we hope to know much more than we do today. My present concerns about medical risks may be put to rest, or they may be heightened.

Similarly, new conducted energy weapons are already entering the market, with different characteristics that may increase or decrease concerns about medical risks, and that may necessitate a reconsideration of proportionality.

Finally, the public needs assurance that their concern about conducted energy weapon usage that precipitated this Commission of Inquiry has resulted in concrete changes to policy and training, and to weapon usage on our streets.

For these reasons, I see this Report as a starting point, not the final chapter on conducted energy weapons. Consequently, I think it is essential that there be an

ongoing assessment of these weapons and their place in our society. I am not content to close with a hopeful suggestion that government undertake further work on these issues; a more definitive commitment is needed.

More than a decade ago, when the Legislative Assembly established a new office of a police complaint commissioner, it entrenched in legislation a requirement for a subsequent review of that office's work. Section 51.2 of the *Police Act*, R.S.B.C. 1996, c. 367 states:

- (1) A special committee of the Legislative Assembly must begin a comprehensive review of this Part and the work of the police complaint commissioner within 3 years after this Part comes into force and must submit to the Legislative Assembly, within one year after beginning the review, a report that includes any amendments to this Part that the committee recommends.
- (2) As part of the review process contemplated by subsection (1), the committee must solicit and consider written and oral input from any interested person or organization.

I think this is a salutary approach, although in this case I would leave it up to the Legislative Assembly to decide whether a special committee of the Legislative Assembly or a respected, knowledgeable, and impartial individual conduct the review.

Recommendation 18

I recommend that the *Police Act* be amended to require that a special committee of the Legislative Assembly, or an individual appointed by the Legislative Assembly, begin a comprehensive review of conducted energy weapons within three years after this Report is made public and submit to the Legislative Assembly, within one year after beginning the review, a report that includes, but is not necessarily limited to:

- the extent to which the recommendations contained in this Report have been implemented;
- new information about the medical risks associated with the use of conducted energy weapons, including new models of weapons that have become available since this Report was written; and

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- recommendations relating to the circumstances in which it is appropriate to use conducted energy weapons, and to training of officers in the use of such weapons.