



**Commission for Public
Complaints Against the
Royal Canadian Mounted Police**

**Commission des plaintes
du public contre la
Gendarmerie royale du Canada**

**RCMP Use of the Conducted Energy Weapon (CEW):
January 1, 2008 to December 31, 2008**

Special Report

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Executive Summary

With the mandate provided by the Minister of Public Safety in November 2007, the Commission for Public Complaints Against the RCMP (the Commission) embarked on a review of all RCMP policies and protocols related to the use of conducted energy weapons (CEWs) in order to prepare a thorough understanding of how the RCMP is using the weapon. The Commission's Interim Report identified and reviewed significant Canadian academic studies, the RCMP's Incident Management/Intervention Model (IM/IM), the history of RCMP CEW policy development, RCMP CEW training and CEW-related public complaints. On December 11, 2007, the Commission provided the Minister and the Canadian public with its Interim Report, which made ten (10) recommendations for immediate implementation that covered three broad conclusions:

- 1) The RCMP needs to coordinate and strengthen its efforts related to data collection and analysis of CEW use;
- 2) The RCMP needs to empirically justify policy shifts with respect to CEW use, especially when that shift loosens the restrictions of deployment; and
- 3) The RCMP needs to clarify to its members and to the public when it is permissible to deploy the weapon.

On June 18, 2008, the Commission released its Final Report with twelve (12) additional recommendations. The Final Report focused on an in-depth analysis of the RCMP CEW usage database and a comparative analysis of other police forces' CEW policies. One of the more significant findings made in the Commission's Interim and Final reports was that the RCMP's CEW reporting forms (Forms 3996¹) and database were severely lacking in the type of descriptive data and explanations for use that needed to be captured for analysis purposes. The failure to properly capture such information negatively impacted the RCMP's ability to assess appropriate decision-making by its members, to create and amend relevant policy governing CEW deployment and to develop pertinent training exercises.

Undermining the RCMP's ability to collect CEW usage data were Forms 3996 not being properly filled out; an apparent inability of members to properly document and articulate their use of the CEW; and most disconcerting, a noticeable systemic under-reporting of CEW use that had been occurring for years. In light of this, the Commission recommended, among other things, that the RCMP provide it with unvetted copies of all RCMP CEW usage forms (Forms 3996) so that the Commission could provide a comprehensive yearly assessment of CEW use by the Force. The RCMP, to date, has been meeting this recommendation² and this report outlines the Commission's analysis of the RCMP's CEW use for the calendar year 2008.

¹ Form 3996 is the form used by the RCMP to capture all CEW use, whether the weapon was threatened or deployed. The report consists of a variety of fields that must be filled out by the member as well as a narrative section that provides a description of events.

² The recommendation contained in the Final Report requested that the Forms 3996 be provided to the Commission on a monthly basis; however, subsequent discussions with the RCMP resulted in them providing these documents every three months.

Overview of RCMP Response to Commission's Final Report

Central to the debate of CEW use by the RCMP is the principle that decisions around when to deploy the weapon should be based on the principle of proportionality: the amount of force used should bear some reasonable relationship to the threat the member is facing and its impact on public safety. The Commission continues to have two interrelated and overarching concerns in this regard:

- 1) That the inappropriate assessment of subject behaviour has resulted in elevating the level of intervention beyond what is acceptable according to the RCMP's use of force model (IM/IM); and
- 2) That RCMP data collection and analysis practices for the CEW usage database are both ineffective and inefficient.

The Commission notes that there has been commendable progress by the RCMP on the twenty-two (22) recommendations, which stemmed from both the Interim and Final Reports; however, more needs to be done in order to alleviate many of the concerns repeatedly expressed by the Commission. To that end, the Commission is currently working with the RCMP with respect to issues of member training, reporting mechanisms and policy development with the view to providing a more in-depth analysis of the RCMP's progress on all of the recommendations.

The most significant development to date is the release of the updated RCMP policy with respect to the CEW on February 9, 2009. This policy sought to clarify when it was appropriate for members to use the CEW, provided better direction for seeking medical attention and removed the term "excited delirium," replacing it with "acutely agitated and delirious persons." While the revised policy is a positive step forward, the Commission remains concerned. In the months to come the Commission will be embarking on, in conjunction with the RCMP, an in-depth analysis to better understand the changes (and proposed changes) to RCMP CEW policy, training, reporting mechanisms and accountability structures. Of import to the Commission will be the nexuses between these areas of concern.

To date the RCMP has been providing the Commission with all Forms 3996, and the RCMP has released two (2) quarterly reports on RCMP CEW usage with commensurate recommendations for change which importantly relates to member training and record keeping. It should be noted that the Chair of the Commission was provided a draft copy of the *RCMP Quarterly Report on Conducted Energy Weapons: 2007-10-01 to 2007-12-31* and provided feedback to the Commissioner of the RCMP. This highlights the level of cooperation between the Commission and RCMP with respect to the use of this weapon in an operational setting.

Notwithstanding the RCMP providing the Commission with their CEW usage forms, there has been no verification that the RCMP has conducted a historical audit of CEW use (as per recommendation six (6) in the Final Report) in an attempt to rectify the Commission's concern

about systemic under-reporting. Further, the RCMP has not fully addressed how it will now be tackling the issue of under-reporting³ by members who use the CEW in the field.

Some of the concerns specific to the issue of systemic under-reporting of CEW use may have been alleviated with the appointment of Divisional Use of Force Coordinators. While the RCMP has appointed these coordinators, the exact nature and responsibilities of the position and what they were initially tasked to do with respect to RCMP CEW use remains unclear. Further, the Commission is unsure as to where exactly the Divisional Use of Force Coordinators fit into the hierarchy and responsibility present in each division. The Commission will be engaging the RCMP to gain a better understanding of the role and responsibilities of the position and if the Divisional Use of Force Coordinators have improved the reporting requirements and addressed other systemic issues related to CEW use within their divisions.

The RCMP has indicated that it will be introducing a new use of force reporting and tracking system referred to as the SB/OR.⁴ While the Commission notes the intention to introduce such a system and believes this type of data collection is a step in the right direction, it remains to be seen if the SB/OR and the commensurate revamping of the use of force model (IM/IM) will have a positive effect on RCMP operational behaviour. The Commission is currently working with the RCMP to understand the implications and implementation of this reporting mechanism on members.

Linked to CEW reporting mechanisms is the issue of access to the CEW database by other sections within the RCMP. The Commission recommended that divisional and National Professional Standards Units, training coordinators and the Learning and Development Service group receive copies of the Form 3996 in order to inform and guide their important work within the RCMP. The RCMP noted that National Professional Standards and National Learning and Development groups have access to the CEW database and that the Divisional Professional Standards sections and training coordinators can access the current CEW database through Divisional CROPS. This does not fully address the Commission's recommendations in that there is no indication that these groups are using the database (or are trained to use it) in a manner that would benefit their specific work. Further, divisional access through Criminal Operations (CROPS) is problematic and it is unclear as to why Professional Standards and training officers would not have direct access to the database.

An undercurrent in the Commission's concern with CEW use is its deployment on at-risk groups. There still appears to be a very narrow RCMP definition of at-risk populations, and specific to CEW use, it appears to be limited to acutely agitated and delirious persons. While the Commission notes the RCMP identification of this broad group, there are other populations (people experiencing mental health crises, those suffering from drug and alcohol toxicity, etc.) that the RCMP has not appropriately taken into consideration. This is problematic, as there is a higher statistical likelihood that these persons will die in police custody⁵ and therefore any effort made to mitigate this outcome should be adopted by the RCMP.

³ While the Commission accepts that the RCMP may never be able to fully rectify the issues associated with the historic under-reporting, it is incumbent upon the RCMP to demonstrate to the Commission and the Canadian public that they are effectively dealing with this serious issue.

⁴ SB/OR stands for Subject Behaviour-Officer Response

⁵ Please see RCMP 2006 In-Custody Death Report.

Notwithstanding this concern, the Commission positively notes that the RCMP has added interaction with at-risk populations in their scenario-based training exercises. The Commission will be exploring the specific training aspects related to CEW use by members in greater detail in the months to come in order to develop an informed position of the extent of progress with respect to this recommendation.

The Commission notes that the RCMP has proactively reached out and engaged key stakeholders, in particular the Canadian Association of Emergency Physicians and the Canadian Mental Health Association, in an attempt to address some of the issues surrounding the recommendation that the RCMP seek medical care for those who have been subject to a CEW. The need for medical care post-deployment is necessary, as the members may not always know the subject's underlying health concerns, which may result in negative implications post-CEW application. The RCMP confirmed with the Commission that immediate medical assessments for everyone subject to a CEW application may be operationally difficult to implement due to limited access to medical resources in some communities; the operational impact of removing a member from service while they wait at the hospital; and the fact that hospitals will not always treat persons brought to them by the RCMP. Despite these obstacles the Commission encourages the RCMP to engage in continued interaction with these Associations and other interested parties.

The RCMP rejected the Commission's recommendation that would have restricted CEW use for general duty⁶ members with less than five (5) years of operational experience in rural areas and to corporals and above in urban settings. The issue of member operational experience is one that repeatedly presents itself in many aspects of the Commission's work, especially in relation to appropriate decision-making, categorization of subject behaviour and use of force responses.

It is recognized that over 60% of RCMP constables (over 70% in the North) have less than five (5) years operational experience and are functioning in a general duty capacity.⁷ While the Commission can appreciate some of the restraints a restriction on CEW certification based on years of service could place on the RCMP, the experience of members is an issue fundamental to CEW use and one that needs to be addressed. The Commission will be engaging the RCMP with respect to member experience and hopes that the RCMP will come up with creative solutions in order to meet this important recommendation (i.e. lower the restriction to two or three years). The RCMP has indicated to the Commission that it will be further examining the issue of member years of service and CEW use.

The Commission has expressed its concern that there is no clear "hard floor" of when the CEW is not to be used; such lack of clarity can be one of the precipitating factors to "usage creep." As stated in the Interim Report, the Commission feels that it is important to clearly delineate in which situations it is not appropriate to use the CEW. However, the RCMP states that they will not implement a "hard floor" in policy, but will address the issue of appropriate and

⁶ The recommendation in the Final Report **specifically excluded** specialized response teams, including Emergency Response Teams (ERTs), Tactical Troops, Containment Teams and High Risk Entry Teams.

⁷ The RCMP has indicated that 62.5% of all front line members have less than five years of service. The Force did not provide the Commission with the breakdown of the number of members, by years of service, who are CEW certified nor was the Commission provided with any information about years of service and actual CEW use. Without this information it is difficult to truly assess the operational impact that a restriction relevant to years of experience would have on operations.

inappropriate use in CEW scenario-based training. To that end, the RCMP has agreed that the Commission needs to gain a better understanding of the scenarios that are to be utilized in training as well as the correlation between the new training and the updated policy. Until the Commission can observe the training and the training scenarios, it cannot provide a proper assessment of the appropriateness of the changes proposed by the RCMP.

The RCMP introduced annual CEW re-certification requirements shortly after the release of the Commission's Interim Report. This step was welcomed by the Commission as positive movement forward. The Force confirmed with the Commission that the re-certification process will include training scenarios and additional training not previously offered in past re-certification courses. The Commission recognizes the logistics that the RCMP face in having to re-certify over 10,000 members as well as train members who are attempting to certify on the CEW for the first time. The Commission is cognizant of the fact that it may take the Force years to fully implement this recommendation.

Overall the RCMP has made good progress on a number of the Commission's recommendations and has committed itself to working closely, both in the short term and long term, with the Commission to appropriately address the various concerns and recommendations. It is recognized that the implementation of many of the sub-components contained in some of the recommendations may take years to put into practice.

Overview of Analysis of CEW Database

The first section of the report presents descriptive analyses of the 1,106 CEW Usage Reports (Form 3996) completed by the RCMP between January 1, 2008 and December 31, 2008,⁸ as well as an examination of potential relationships between identified variables. The next section, the first of its kind, provides both quantitative and qualitative analyses of the narrative summaries on the Forms 3996 to provide greater context for the circumstances that can give rise to RCMP CEW usage in 2008. The third section of the report compares the 2008 findings with those from previous years as outlined in the Commission's Final Report (2002-2007) and highlights significant changes between the two time periods. The final section of the report provides findings specific to two groups where the Commission has an increased concern of RCMP CEW use: youths aged 13-17 and subjects identified as having mental health issues or as being suicidal.⁹

As with the Commission's Final Report, missing data presented a problem during the analysis of the 2008 RCMP CEW database, however, it should be noted that the missing data did not present as severe of an analytic challenge as it had in the past. While data was missing from the Forms 3996, typically about the environment and member characteristics, there were more fulsome explanations provided in the narrative sections and circumstances around the use of the CEW.

The main statistical findings in this report are as follows:

- In 2008, almost 80% of CEW reports were generated by the four Western divisions. "E" Division (B.C.) ranked first in the number of reports. Trend analyses confirmed that these figures represent a consistent pattern of deployment.
- While members reported that the use of the CEW avoided the use of lethal force in over half of the reports (54.1%), there is reason to be suspicious of this figure. In many cases, the information presented in the narrative summaries did not support the member's statement that lethal force would have been used were it not for the presence of a CEW.
- The percentage of reports resulting in CEW deployment dropped significantly from 2007 and the results suggest that the CEW has increasingly been used as a deterrent.
- *Push-stun* and *probe* modes were used in approximately the same proportion of cases. This is a notable change from previous years, as *push-stun mode* was previously a much

⁸ This qualitative and quantitative analysis was completed by converting the RCMP database into an SPSS (Statistical Package for Social Science) data file. The following analysis offers descriptive and bivariate analyses in the form of chi-square analysis of 1,106 CEW usage reports completed by the RCMP between January 1, 2008 and December 31, 2008. A chi-square analysis is designed to allow for the measurement of the degree of "dependence" between two variables. If two variables are "dependent," they are necessarily associated with one another. If the value of one variable is known, one can have a better idea about the value of the other variable. Conversely, "independent" variables are not associated; knowing something about one reveals nothing statistically pertinent about the other.

⁹ The Commission relied on the incident type and birthdates contained in the RCMP's Form 3996 in order to identify who would be included in these populations.

more common outcome. When *push-stun* mode was used at all, it was used two (2) or more times on about 30% of occasions

- In 2008, the factors most likely linked to a CEW deployment were *substance use*, *number of members present*, and *division*.
- Consistent with other years, approximately 1/3 of all CEW deployments, actual use or threatened use, involve the subject having some form of a weapon present.
- Consistent with past findings, *weapons involvement* significantly increased the likelihood of being taken to a medical facility. Contrary to previous years, however, *substance use* was not related to the probability that a subject would be taken for a medical examination. In 2008, substance use actually decreased the occurrence of receiving medical attention as opposed to no substance use being involved.
- There are concerns about CEW usage in relation to two specific populations: youths, and the mentally ill. It is not that CEWs should never be used with these groups, but rather, that there should be a higher threshold for usage where these subjects are concerned. This higher threshold is not always observed.

In addition to the statistical analysis performed, the Commission attempted to better understand the circumstances of CEW use and conducted a content analysis on the narrative portion of the Forms 3996. The content analysis strove to identify and examine the nuanced behaviour present in situations and ***should not be correlated*** to the RCMP IM/IM subject behaviour classifications. The findings of the content analysis are as follows:

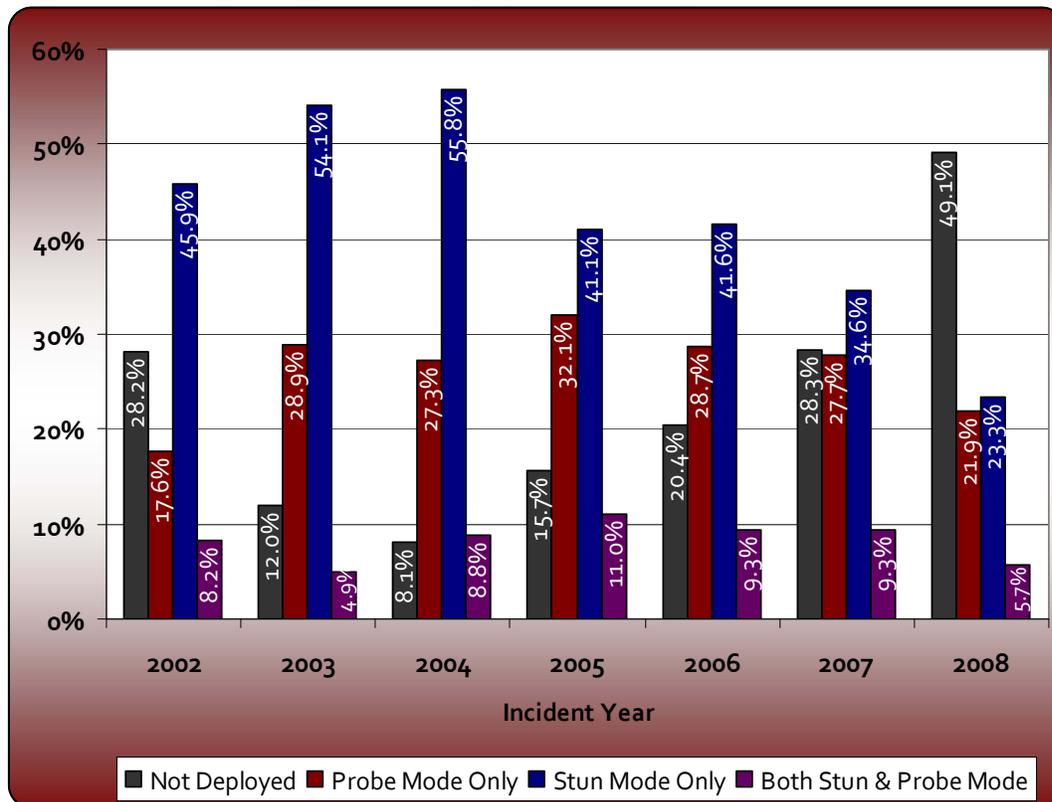
- The narrative summaries for 2008 indicate that there were a wide variety of circumstances which lead to the member's decision to use the CEW. *Combative* or *actively resistant* subjects were the two largest circumstance categories, followed by *threat cues*.
- Incidents involving circumstances that could be classified as *combative* were the most likely to result in the CEW being deployed.
- CEWs were much more apt to be used as deterrents in circumstances where *threat cues* were identified and where the situation had not become more aggressive or physical.
- *Non-compliance* of subjects was cited in many CEW usage reports, but most of the time it was combined with some other consideration (e.g. a weapon, threat to third party, or unwillingness to show hands). There were few cases where behaviours only identified as *non-compliant*, with no mitigating factors, resulted in a CEW incident.
- 83.2% of circumstances identified as *non-compliant* involved additional circumstances that cast the *non-compliance* in a much different, more serious light.

- The narrative circumstances described on the Forms 3996 were not consistent with the responses to the *avoid lethal force* field on the same form.
- There was no evidence of *push-stun* abuse in the circumstances described in the narrative section. The use of *push-stun mode* only was rarely used outside of situations identified as involving *combative* or *actively resistant* circumstances.
- Most noticeably, *probe* incidents involving circumstances identified as *combative* or *actively resistant*, or subjects exhibiting *threat cues*, were comparatively less likely to result in a medical examination. However, *probe* incidents involving *suicidal* subjects were much more likely to result in examination.

As with the Commission’s Final Report, a reasonable profile could be created of who is most likely to be subjected to a CEW deployment. The profile that could be developed, based on the Forms 3996, for 2008 is similar to that developed in the Final Report using data from 2002-2007. Of note, there was a slight increase from previous years in the number of times members took photos of injuries.

In a significant departure from previous years, in 2008, the CEW was deployed (in *probe* or *push-stun* mode) just over half of the time it was de-holstered. Just under half (49%) of the Forms 3996 indicated that the CEW was only threatened and never deployed. There appears to be a systemic shift in how members are using the CEW, as evidenced by the chart below:

Graph 1: Percentage of Type of CEW Deployment: Annually



The comparative analysis between 2008 and the combined results from 2002-2007 uncovered some changes in CEW use. As noted, the use of the CEW as a deterrent (deployment is only threatened) increased significantly while there appeared to be no discernable change in the nature of circumstances as described in the narrative section of the Form 3996. Related to the increase in the CEW being threatened but not deployed was an increase in members reporting that subjects were aware of the presence of the weapon. Also noteworthy is the apparent decrease in the *number of reports per member, the number of cartridges fired, number of times push-stun mode was used, cycle duration and number of cyclings*.

When the Commission examined CEW usage annually there appeared to be a decrease in deployments from 2004 until 2007; however, in 2007 CEW use significantly increased. In 2008, there was a 30% decrease in overall Forms 3996 from the previous year; however, the decrease in reports in 2008 may be a return to 2006 levels of reporting.

The identified changes in CEW use for 2008, as well as the trends identified over previous reporting years, will be monitored over a number of years to determine if what occurred in 2008 was an anomaly or a genuine shift in operational behaviour.

STATISTICAL ANALYSIS OF CEW REPORTS: 2008

This section of the report presents descriptive analyses of the 1,106 CEW Usage Reports (Form 3996) completed by the RCMP between January 1, 2008 and December 31, 2008,¹⁰ as well as an examination of potential relationships between identified variables.

Descriptive Analyses

Incident and Environmental Characteristics

A summary of the factors relevant to the circumstances of CEW usage is presented in Table 1. The bulk of the Forms 3996 were generated by the western divisions; together “E” Division (B.C.), “K” Division (Alberta), “F” Division (Saskatchewan) and “D” Division (Manitoba) contributed more than three-quarters (79.3%) of all Forms 3996. It is not surprising that “E” Division produced more reports, given that it has more members than any other division in the country. However, the data to allow for more standardized comparisons is not available at this time.

Although Forms 3996 were completed in relation to a wide variety of incident types, some circumstances generated more Forms 3996 than others. The top five (5) of these situations, “domestic disputes,” “causing a disturbance,” “non-domestic assault,” “mental health,” and “cell block” constituted about 60% of incident types.¹¹ Even with these raw figures, however, the Commission was unable to speculate about the “proneness” of incident types. There is no way to determine whether, for example, disturbance calls were more likely to result in CEW usage without knowing what proportion of *all* calls that were categorized as such.

Not surprisingly, CEW-related events occurred predominantly in the evening hours. More than half of all report-generating events took place between 8 p.m. and 4 a.m. It also appears that CEW incidents tend to involve multiple members: three or more members were present at two out of every five CEW-related events.

In theory, the Forms 3996 collect an assortment of environmental data, including setting, temperature, weather and lighting conditions, wind direction and wind speed. In practice, however, much of the information is incomplete, so much so that all but two of the fields, setting and lighting conditions, are essentially useless. The more complete data indicates that CEW usage was roughly evenly split between interior and exterior settings, and that about 40% of events occurred under less than optimal lighting conditions.

¹⁰ This qualitative and quantitative analysis was completed by converting the RCMP database into an SPSS (Statistical Package for Social Science) data file. The following analysis offers descriptive and bivariate analyses in the form of chi-square analysis of 1,106 CEW usage reports completed by the RCMP between January 1, 2008 and December 31, 2008. A chi-square analysis is designed to allow for the measurement of the degree of “dependence” between two variables. If two variables are “dependent,” they are necessarily associated with one another. If the value of one variable is known, one can have a better idea about the value of the other variable. Conversely, “independent” variables are not associated; knowing something about one reveals nothing statistically pertinent about the other.

¹¹ If the Commission combined the “mental health” and “suicide” incident types it became the number one incident type the RCMP responded to in 2008.

Table 1: Incident and Environmental Characteristics					
	<i>N</i> <i>(1106)</i>	%		<i>N (1106)</i>	%
Time of Day			Incident Type		
12 Midnight to 4 AM	326	29.5%	Arrest Warrant Execution	39	3.5%
4 AM to 8 AM	106	9.6%	Assault (Non-domestic)	133	12.0%
8 AM to 12 Noon	63	5.7%	Cause Disturbance	155	14.0%
12 Noon to 4 PM	123	11.1%	Cell Block	91	8.2%
4 PM to 8 PM	192	17.4%	Domestic Dispute	167	15.1%
8 PM to 12 Midnight	291	26.3%	Firearms Complaint	9	0.8%
Missing	5	0.5%	General Patrol - No Complaint	37	3.3%
Division			Impaired Driving	51	4.6%
Headquarters	0	0.0%	Mental Health	125	11.3%
National Capital Region (A)	0	0.0%	Prisoner Escort	4	0.4%
Newfoundland and Labrador (B)	42	3.8%	Robbery	7	0.6%
Manitoba (D)	90	8.1%	Search Warrant Execution	4	0.4%
British Columbia (E)	386	34.9%	Suicidal Person	48	4.3%
Saskatchewan (F)	178	16.1%	Traffic Stop	20	1.8%
Northwest Territories (G)	39	3.5%	Weapons (Non-firearm)	73	6.6%
Nova Scotia (H)	49	4.4%	Other	142	12.8%
New Brunswick (J)	55	5.0%	Missing	1	0.1%
Alberta (K)	223	20.2%	Number of Members Present		
Prince Edward Island (L)	8	0.7%	1	175	15.8%
Yukon (M)	10	0.9%	2	475	42.9%
Ontario (O)	0	0.0%	3	230	20.8%
Nunavut (V)	25	2.3%	4	111	10.0%
Missing	1	0.1%	5	60	5.4%
Lighting Conditions			6+	55	5.0%
Poor artificial light	206	18.6%	Mean	2.68	
Good artificial light	402	36.3%	Setting		
Day light	247	22.3%	Interior	498	45.0%
Dusk	40	3.6%	Exterior	604	54.6%
Dark	207	18.7%	Missing	4	0.4%
Missing	4	0.4%			

Member Operating CEW

Specific information concerning the RCMP member completing a Form 3996 is somewhat sparse. Table 2 shows that reporting members were overwhelmingly Constables and that three-quarters of members were involved in only one CEW reporting incident. Unfortunately, the rank of members was missing in 28.4% of the cases.

	<i>N (1106)</i>	%		<i>N (818)</i>	%
Rank			Usage Reports Per Member		
Constable	729	65.9%	1	614	75.1%
Corporal	35	3.2%	2	149	18.2%
Sergeant	5	0.5%	3	34	4.2%
Staff Sergeant	7	0.6%	4	11	1.3%
Inspector	16	1.4%	5	4	0.5%
Missing	314	28.4%	6	3	0.4%
Duty Type			7	0	0.0%
General Duty	979	88.5%	8	1	0.1%
Highway	15	1.4%	9	0	0.0%
ERT	3	0.3%	10+	0	0.0%
Other	26	2.4%	Missing	2	0.2%
Missing	83	7.5%	Mean	1.35	

Subject Characteristics

The vast majority of the subjects were male (92.9%). On average, subjects were just over 30 years old; a notable number were above 50 years old. However, the Commission did find that CEW deployment was unrelated to either the sex or age of the subject, in that the presence of those two variables alone did not increase the likelihood of a CEW deployment. One of the issues of concern identified in the Commission's Final Report, (covering 2002-2007) was CEW use involving subjects under the age of 18. There were 62 such reports in 2008, indicating that the use of CEWs against "youths" continues to be an issue and will be addressed separately further in this report.

A significant percentage of events (84.2%) were identified as involving substances that had an impact on the suspect; nearly three-quarters (74.0%) of all cases involved alcohol. In contrast, the prevalence of weapons (36.1%) was significantly lower. Where weapons were present, the most likely was a knife or some other edged weapon (47.1% of reports involving weapons).¹²

¹² "Other weapons" identified on the Forms 3996 were axes, hammers, screwdrivers, pepper/bear spray, CEWs, accelerants, chainsaws, brass knuckles and weapons identified as unknown.

According to the reporting members, the use of the CEW, in most cases, assisted in avoiding injuries. The Commission is not sure if this indicates avoiding injury to the RCMP member(s) or the subject. As well, members reported that the CEW avoided the use of lethal force in over half of the reports. The figure, 54.1%, represents a very large and significant increase over previous years. The suggestion that nearly 600 subjects could have been killed were it not for the CEW is difficult to reconcile with the narrative summaries.

Having said that, the Commission is aware that the wording of the two questions¹³ related to avoiding injury and death can be (and is) misunderstood by members. The result of this misunderstanding is that members tend to answer “yes,” when “no” or “not applicable” would be a more appropriate answer given the circumstances. The Commission has been advised by the RCMP that the confusion arising from the wording of these two questions will be addressed through the introduction of a new use of force reporting system. Until this issue is addressed, the Commission cannot adequately gauge, from an empirical standpoint, if the use of the CEW actually avoids injury and/or death in all instances where members have indicated a “yes.”

	<i>N (1106)</i>	%		<i>N (1106)</i>	%
Age			Sex		
Under 20	124	11.2%	Female	73	6.6%
20 - 29	443	40.1%	Male	1028	92.9%
30 - 39	298	26.9%	Missing	5	0.5%
40 - 49	179	16.2%	Weapon Involved		
50+	57	5.2%	No	707	63.9%
Missing	5	0.5%	Yes	399	36.1%
Mean	31.0		Type of Weapon*		
Substance Use Involved			Gun, Rifle, or Shotgun	22	2.0%
No	175	15.8%	Knife	188	17.0%
Yes	931	84.2%	Other Edge Weapon	29	2.6%
Type of Substance*			Inert Projectile	66	6.0%
Alcohol	818	74.0%	Baton, Club, Rod, or Stick	71	6.4%
Cannabis	127	11.5%	Other Weapon	124	11.2%
Cocaine	167	15.1%	Avoid use of lethal force		
Heroin	5	0.5%	No	508	45.9%
Amphetamines	25	2.3%	Yes	598	54.1%
Prescription Drugs	91	8.2%	Avoid injuries		
Other Substance	66	6.0%	No	109	9.9%
			Yes	997	90.1%

¹³ These two questions are: 1) “Did the threat or use of CEW avoid use of lethal force?” And 2) “Did the threat or use of CEW avoid injuries to subject or Police?”

¹⁴ The asterisk (*) indicates more than 1 answer per report was possible.

Injury and Medical Characteristics

As outlined in Table 4, over 80% of the Forms 3996 indicated that the subject received no injuries (65.5% in cases where the CEW was actually deployed). Where injuries or physical afflictions were recorded, they were generally described as being consistent with the routine operation of a CEW. These included the “punctures” or “marks” produced by probes and the “burns” associated with *push-stun* mode. In contrast to previous years, 2008 reports were less likely to diminish injuries by characterizing them as “small,” “minor,” or “superficial.”

The issue of injury seriousness is, to some degree, captured by two fields: whether photos of the injuries were taken, and whether the subject was examined at a medical facility. In situations where the CEW was actually deployed, injuries were identified in 34.5% of the cases, photos were taken 13.9% of the time and the subject was given a medical exam in 32.1% of the time.

Table 4: Injury and Medical Characteristics					
	<i>N</i> (1106)	%		<i>N</i> (1106)	%
Injury Description			Photos Taken		
No Injury	911	82.3%	No	1020	92.2%
Puncture/Cut	70	6.3%	Yes	86	7.8%
Burn	26	2.4%	Medical Exam		
Marks	48	4.3%	No	866	78.3%
Redness	13	1.2%	Yes	240	21.7%
Bleeding	2	0.2%	Proportion of Cases – CEW Engaged (N = 563)		
Welts/Bruising/Swelling	7	0.6%	Injury Described		
Chest pains/short of breath	3	0.3%	No	369	65.5%
Abrasions/Irritation/Scrape	7	0.6%	Yes	194	34.5%
Injury after event	11	1.0%	Photos Taken		
Undisclosed Wound/Injury	7	0.6%	No	485	86.1%
Defecation/Urination	1	0.1%	Yes	78	13.9%
Dead	1	0.1%	Medical Exam		
			No	382	67.9%
			Yes	181	32.1%

CEW Deployment Characteristics

Push-stun and *probe* modes were used in approximately the same proportion of cases. This is a notable change from previous years, as *push-stun mode* was previously a much more common outcome. In a small but not trivial number of cases, both means were employed. In nearly half of the reports, the CEW was not deployed, merely threatened. The increase in the incidence of CEWs being used as deterrents (that is, drawn but not deployed) is exceptionally large and noteworthy.

When used in *probe* mode, more than one (1) cartridge was rarely fired (only 7.9% of all such cases). On the other hand, *push-stun* mode was more apt to be used multiple times. When *push-stun* mode was used at all, it was used two (2) or more times on about 30% of occasions.

Subjects were usually made aware that a CEW was present. Anecdotal evidence indicates that members may keep the CEW from view in particular situations, including: the need to maintain tactical advantage; and the desire not to provoke or escalate an already agitated suspect. As well, the CEW sometimes remains hidden in circumstances involving subjects that are clearly suicidal or wishing to harm themselves. More generally, however, the fact that most subjects were aware of the CEW is consistent with its utility as a deterrent, and follows current policy guidelines for issuing the verbal CEW warning.

Cartridge Usage Characteristics

In addition to completing a standard Form 3996, members are required to complete an ancillary report on every cartridge that is actually fired. The first noteworthy finding is that the field “Distance from operator to subject” has been recorded as “0” since about June 1, 2005. As a result, the distance field was, in all cases in 2008, recorded as 0. It is unclear as to why this requirement has not been filled out but the RCMP has indicated to the Commission that they are examining the reason for this omission.

In terms of the *duration* of discharge, probes were most often engaged for the full five second interval. The weapon was usually cycled once, but multiple cyclings were not uncommon (27.6%). The clustering of the probes, as indicated by *spread*, was most often less than 30 centimetres. Given the often chaotic nature of events, it also was not surprising that there appeared to be a fair degree of imprecision in where the probes actually impacted. In just over 20% of cases, one or both probes missed their target.

The cartridge usage report also provides an indication as to whether the following verbal command was given before the CEW is engaged: *Police stop or you will be hit with 50,000 volts of electricity!* The command was actually given prior to engaging the CEW in about 40% of cases. In another 20% of cases, some alternative command was given. In these cases, the command involved the use of the word “Taser,” or a warning about “50,000 volts.” In cases where the command was not given, explanations provided on the Forms 3996 identified these rationales:

- No time to give command (with or without further elaboration)
- Sudden or unexpected change in subject behaviour
- Subject was combative
- Members were already engaged with the suspect when CEW arrived
- Subject posed immediate threat/possible or suspected weapon
- Subject suicidal or threatening or attempting to harm his/herself
- Subject delusional/irrational/agitated/not responding to verbal commands
- Subject fleeing/members already in pursuit of suspect
- Tactical considerations/element of surprise
- Weapon had already deployed once
- Subject aware of Taser/Taser visible to subject

Bivariate Analyses

CEW Deployment

Several of the variables were significantly related to CEW usage, including *substance use*, *number of members present* and *division*. With respect to the potential association between *CEW deployment* and *substance use*, both variables were measured as either “yes” or “no.” That is, the CEW was either engaged, or it was not; substance use was involved, or it was not. The Commission sought to determine the proportion of *yes* answers for *CEW deployment*. Graph 2 shows that when substance use was not involved, the CEW was engaged 37.7% of the time. However, when substance use or the suspicion of use was present, the proportion of cases in which the CEW was deployed rose to 53.4%. Therefore, substance use was related to CEW usage, in that it significantly increased the probability that the CEW would be deployed.¹⁵

Graph 2: Substance Use and CEW Deployment

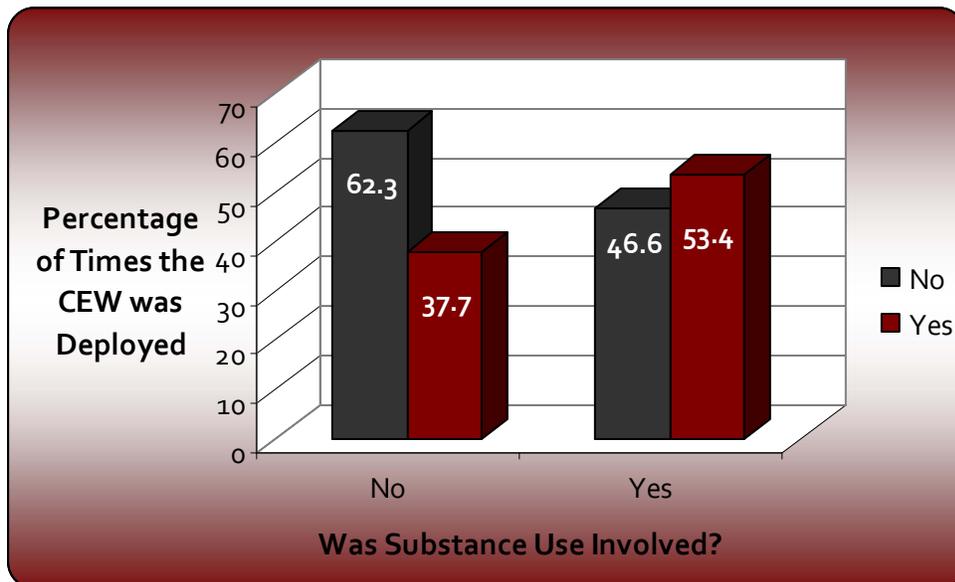


Table 5 similarly demonstrates that *the number of members present* was also significantly related to the use of the CEW. More precisely, the two increased together. When only one member was present, the CEW was deployed in 44.6% of incidents. But when two (2) or more members attended, the rate of deployment went up to between 47.8% and 61.7%. Secondary analyses revealed that the important difference was between cases that involved one member than those cases that involved more than one member. If more than one member was present, the likelihood of CEW deployment enhanced.

¹⁵ It should be noted that in this context that “deployed” means the CEW was actually fired or used in *push-stun* mode, and that “not deployed” means the weapon was only threatened.

Table 5: Whether CEW was Deployed by Number of Members Present¹⁶			
	CEW Deployment		
Number of Members Present	<i>No</i>	<i>Yes</i>	<i>Total</i>
1	97 55.4%	78 44.6%	175
2	248 52.2%	227 47.8%	475
3	107 46.5%	123 53.5%	230
4	40 36.0%	71 64.0%	111
5	23 38.3%	37 61.7%	60
6+	28 50.9%	27 49.1%	55
Total	543 49.1%	563 50.9%	1106 100%

The third significant variable that showed significant differences for CEW deployment was *division*. Simply put, there was wide variation in deployment, ranging from a low of 25% (from an admittedly small sample of cases in “L” Division [P.E.I.] to a high of 72.0% in “V” Division (Nunavut). At the same time, it is worth noting that the rates of deployment in three of the four western divisions (“E”, “K”, and “D”) were very consistent; deployment varied significantly only in “F” Division (Saskatchewan).

Consistent with other years, approximately 1/3 of all CEW deployments, actual use or threatened use, involve the subject having some form of a weapon present.

Incident type, which had been significant, was not significant in 2008 (Table 6). There is significant spread in deployment rates by incident type (25.0% to 75.0%), but the incident types accounting for the extremes are relatively rare. Put another way, if we focus on those incident types that occurred more than 20 times, the range of deployment rates was much more restricted (35.3% to 56.8%). Deployment rates for most incident types were near the overall average of 51.0%.

¹⁶ $\chi^2 = 15.69, df = 5, p = .008$

Table 6: Whether CEW was Deployed by Incident Type¹⁷			
	CEW Deployment		
Incident Type	<i>No</i>	<i>Yes</i>	<i>Total</i>
Prisoner Escort	1 25.0%	3 75.0%	4
Robbery	2 28.6%	5 71.4%	7
General Patrol - No Complaint	16 43.2%	21 56.8%	37
Mental Health	55 44.0%	70 56.0%	125
Firearms Complaint	4 44.4%	5 55.6%	9
Assault (Non-domestic)	60 45.1%	73 54.9%	133
Suicidal Person	22 45.8%	26 54.2%	48
Other	65 45.8%	77 54.2%	142
Arrest Warrant Execution	18 46.2%	21 53.8%	39
Cell Block	43 47.3%	48 52.7%	91
Domestic Dispute	86 51.5%	81 48.5%	167
Cause Disturbance	80 51.6%	75 48.4%	155
Weapons (Non-firearm)	41 56.2	32 43.8	73
Impaired Driving	33 64.7%	18 35.3%	51
Traffic Stop	13 65.0%	7 35.0%	20
Search Warrant Execution	3 75.0%	1 25.0%	4
Total	542 49.0%	563 51.0%	1106 100%

¹⁷ $\chi^2 = 16.24, df = 15, p = .367$

Medical Examination

The second issue addressed relates to whether subjects were examined at a medical facility. In this instance, medical examination is taken as a rough estimate of seriousness of injuries. As such, it is important to recognize that subjects were sometimes taken for medical exams even when their injuries were not directly related to the use of a CEW. For example, the subject may have been injured in the altercation that led to the CEW being deployed. In general, however, the narrative summaries suggested that the medical exams were primarily related to the CEW. It is also worth mentioning that all of the following analyses are limited to circumstances in which the CEW was actually deployed.

With regard to *mode of deployment* (Table 7), it is clear that *probe* mode, either alone (38.8%) or in conjunction with *push-stun* mode (39.7%), brought a much higher risk of requiring a medical examination than *push-stun* mode alone (24.0%).

Deployment Mode	Medical Examination		<i>Total</i>
	<i>No</i>	<i>Yes</i>	
<i>Probe</i> Only	148 61.2%	94 38.8%	242
<i>Push-stun</i> Mode Only	196 76.0%	62 24.0%	258
Both <i>Probe</i> and <i>Push-stun</i> Mode Used	38 60.3%	25 39.7%	63
Total	382 67.9%	181 32.1%	563 100%

Tables 8 and 9 show a strong, positive relationship between both the *number of cartridges fired* and the *number of times push-stun mode was used* and the likelihood of a medical exam. After the first probe cartridge, the rate of medical exams was almost 10 points higher for each subsequent cartridge fired. The same pattern is evident in relation to *push-stun* mode. In general, each time *push-stun* mode was used, the likelihood of requiring a medical exam increased. Despite these clear patterns, however, the relatively small number of cases involving multiple probe cartridges meant that the degree of dependence between the two variables was statistically insignificant.

¹⁸ $\chi^2 = 14.40, df = 2, p < .001$

Table 8: Whether Medical Examination was Performed by Number of Cartridges Fired¹⁹

Number of Cartridges Fired	Medical Examination		Total
	No	Yes	
1	174 61.9%	107 38.1%	281
2	12 52.2%	11 47.8%	23
3	0 0.0%	1 100.0%	1
Total	186 61.0%	119 39.0%	305 100%

Table 9: Whether Medical Examination was Performed by Number of Times Push-stun Used²⁰

Number of Times Push-stun Mode Used	Medical Examination		Total
	No	Yes	
1	171 78.1%	48 21.9%	219
2	47 68.1%	22 31.9%	69
3	12 46.2%	14 53.8%	26
4	0 0.0%	2 100.0%	2
5+	4 80.0%	1 20.0%	5
Total	234 72.9%	87 27.1%	321 100%

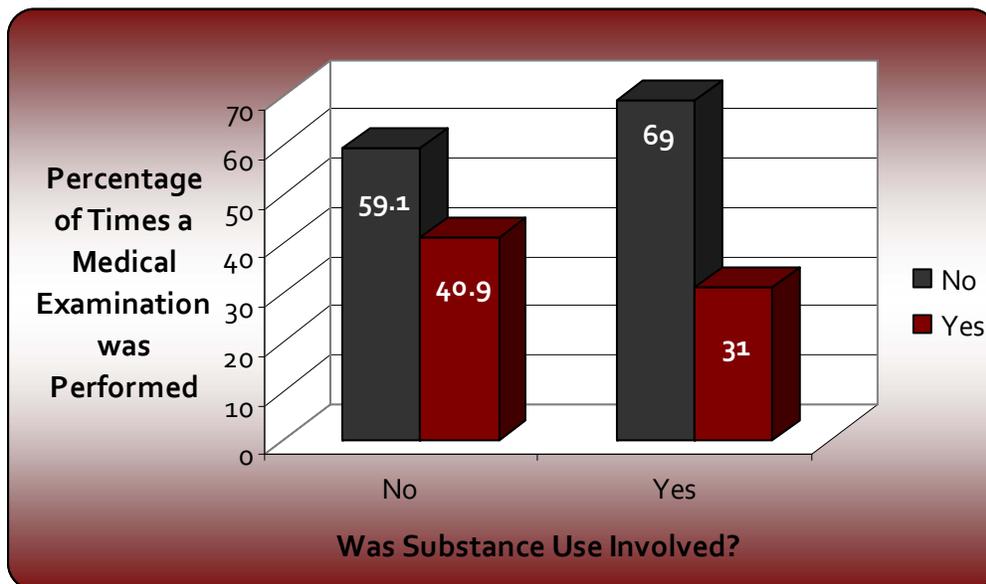
The pattern of linear increase was also observed for *number of members present*. Just as the presence of more members increased the likelihood of CEW deployment in the earlier analysis, so too did it raise the probability of medical attention. When six (6) or more members were present, there was a 50/50 chance that the subject would need to be taken for a medical exam.

¹⁹ $\chi^2 = 2.42, df = 2, p = .299$

²⁰ $\chi^2 = 18.70, df = 4, p = .001$

Consistent with past findings, *weapons involvement* significantly increased the likelihood of being taken to a medical facility. Contrary to previous years, however, *substance use* was not related to the probability that a subject would be taken for a medical examination (Graph 3). In 2008, substance use actually decreased the occurrence of receiving medical attention as opposed to no substance use involved.

Graph 3: Substance Use and Medical Examination



As was the situation with deployment, subject *sex* (gender) was not a factor in distinguishing whether an exam occurred: females were more likely to be examined, but the difference was not significant. Subject *age*, on the other hand, shows a more distinctive pattern. The rate of examinations increased with age, with subjects 50 years or older receiving attention more than 45% of the time.

Similar to Table 6, Table 10 ranks various *types of incidents* by their propensity to result in a medical examination. The figures for incident types identified as *suicidal persons* or *mental health* are remarkable. The rates of examination for subjects in these types of cases, at over 75%, were about double those of the next closest incident type (not including *prison escort* and *search warrant execution*, which together comprised only four cases). At the other end of the spectrum, *cell block* cases resulted in medical attention less than 10% of the time.

The pattern of results for *division* closely mirrored those found in the previous deployment analysis. Different divisions produced vastly different examination rates, ranging from 0.0% in Nunavut (“V” Division) to 54.2% in Nova Scotia (“H” Division). These disparities were statistically significant as the rates of medical examination for “E” Division, “K” Division, and “D” Division were roughly comparable, while the figure for “F” Division was considerably lower.

Table 10: Whether Medical Examination was Performed by Incident Type²¹			
	Medical Examination		
Incident Type	<i>No</i>	<i>Yes</i>	<i>Total</i>
Search Warrant Execution	0 0.0%	1 100.0%	1
Mental Health	15 21.4%	55 78.6%	70
Suicidal Person	6 23.1%	20 76.9%	26
Prisoner Escort	1 33.3%	2 66.7%	3
Weapons (Non-firearm)	20 62.5%	12 37.5%	32
Impaired Driving	12 66.7%	6 33.3%	18
Arrest Warrant Execution	14 66.7%	7 33.3%	21
Domestic Dispute	58 71.6%	23 28.4%	81
Other	59 76.7%	18 23.4%	77
Cause Disturbance	60 80.0%	15 20.0%	75
Robbery	4 80.0%	1 20.0%	5
Firearms Complaint	4 80.0%	1 20.0%	5
General Patrol – No Complaint	17 81.0%	4 19.0%	21
Assault (non-domestic)	62 84.9%	11 15.1%	73
Traffic Stop	6 85.7%	1 14.3%	7
Cell Block	44 91.7%	4 8.3%	48
Total	382 67.9%	181 32.1%	563 100%

²¹ $\chi^2 = 131.16, df = 15, p < .001$

ANALYSIS OF NARRATIVE SUMMARIES

This section provides both quantitative and qualitative analyses of the narrative summaries on the Forms 3996 to provide greater context for the circumstances that can give rise to RCMP CEW usage in 2008. The type of analysis is the first of its kind specific to RCMP CEW use and the circumstances faced by members. It must be stressed that the Commission is taking the descriptions in the narratives at face-value; no assessment of truth has been afforded to the members' articulation of events.

Descriptive Circumstantial Categories

In order to attempt to better understand the nature of the CEW use by the RCMP it is necessary to analyze the variety of circumstances that could be present in a situation where CEWs are used. In this instance, no assumptions were made about what members were thinking in relation to the subject's behaviour at that time; rather, the analysis looked at the descriptions in the narrative summary that were provided by members in their attempt to articulate what had happened. The content analysis strove to identify, and then examine, the nuanced behaviour present in these situations and *should not be correlated* to the RCMP IM/IM subject behaviour classifications.

The goal in this section is to provide more detailed information about the contexts and circumstantial factors that gave rise to the use of the CEW. Qualitative coding techniques were used to create ten (10) broad categories of circumstances that surrounded CEW use. While some of the terminology used to describe the circumstances surrounding CEW use may be similar to the RCMP's subject behaviour classifications, they are not correlative. The objective of the content analysis was:

- to qualitatively categorize the circumstances in which members found themselves and identify sub-sets of behaviour that need to be further broken down;
- to further understand what situational factors (or circumstances) may impact a member when they are identifying a subject behaviour classification; and
- to attempt to identify and categorize the nature of the situation the members found themselves in, which is far more nuanced than the large over-arching categories of subject behaviour classifications.

It is not the Commission's intention with this content analysis to independently classify or authenticate a subject behaviour classification identified by a member; the objective is to analyze circumstances and to categorize those circumstances in a manner that can be more fully evaluated.

A brief description of the circumstance categories is as follows:

Combative

The most common of the circumstances that led to a CEW being used were those where the circumstances could best be described as *combative*. As with most of the circumstance categories, the *combative* designation is broadly defined. In general, *combative* refers to subjects fighting with members or otherwise attempting to injure members by kicking at them, brandishing weapons at them, and the like. Contrary to the common RCMP utilization of the

combative subject behaviour classifications, *combative* in this report does not include circumstances where the subject is apparently *about to become combative*. The circumstances where subjects were *about to become* combative have been given a distinct circumstance category for the purposes of this analysis referred to as *threat cues*.

Actively Resistant

Closely related to *combative* is the second most prevalent circumstance category: *actively resistant*. *Active resistance* circumstances are distinguished from *combative* circumstances by the level of physicality and hostile intent exhibited by the subject. In circumstances characterized as *actively resistant*, subjects did not attempt to strike the member(s), but rather, physically resisted police attempts at control. The most common example of *active resistance* would be subjects pressing their arms against (or underneath) their bodies so as to obstruct members' attempts to handcuff the subject or otherwise take the subject into custody. Leveraging or bracing ones body to prevent being put into a police cruiser would be another example of *active resistance*. Note that the subject had to actually *do something* in order for the circumstance to be defined as *actively resistant*. *Non-compliance* will be addressed shortly.

Threat Cues

Of the three main circumstance categories, *threat cues* is perhaps the most ambiguous. Simply put, there are a number of behaviours that members recognize as precursors to more aggressive behaviour; however, the subject has not started to do something rather they are showing signs that they are about to do something. *Threat cues* included such things as adopting a boxer's stance (fists up in a fight position), intense staring, the clenching and unclenching of fists, and noticeable body tensing. In a large number of cases, threat cues were exacerbated by a subject *closing the distance*. In other words, these behaviours were perceived to be even more aggressive when the subject began to move toward the member. As noted above, members routinely described *threat cue* behaviours as being *combative*. However, to maintain the integrity of the circumstance category of *combative*, *threat cues* here were treated as distinct.

Non-compliance

On the face of it, *non-compliance* would appear to be the most innocuous of the circumstantial categories. As the name suggests, *non-compliance* refers to circumstances where subjects were uncooperative, especially with regard to following member instructions. Most *non-compliance* cases, however, were not clear-cut. In fact, 83.2% of circumstances identified as *non-compliance* involved *additional circumstances* that cast the *non-compliance* in a much different, more serious light. Examples of *additional circumstances* included subjects being unwilling to show their hands, hiding, or making quick or unexpected movements, and the presence of weapons. It was found through analysis that in general it was not so much the lack of cooperation, but the lack of cooperation coupled with some aggravating factor, that resulted in the use of a CEW.

Fleeing, Suicidal and Weapons

In addition to these broad categories, there were three more specific behavioural patterns that together comprise about 20% of CEW incidents. The first of these involves suspects who are *fleeing* or attempting to flee. An interesting subset of *fleeing* cases involved what has been termed “post-flight” incidents. In these cases, members caught up to suspects that had fled. The CEW was already out because of the chase, or it was drawn as a precaution until the suspect’s intentions could be ascertained. CEWs routinely played a part in calls related to *suicidal* suspects. These calls were often complicated both by the agitated emotional status of the subject, as well as the fact that weapons (especially knives) were regularly involved. And third, there is a special category of *weapons* cases. In these incidents, the CEW tended to be used as a means of effecting safe entry. That is, members would arrive at a location knowing that the subject was, or very likely was, in possession of a weapon. In these cases, CEWs were drawn before interacting with the subject. The other type of *weapons* call followed a similarly predictable script; that is, members arrived on location to find a suspect yielding a weapon, and the CEW was brought out before the initiation of contact with the subject. It is important to note that *weapons* incidents often included lethal force over-watch.²²

Residual Categories

In addition to these seven main circumstance categories, three residual categories were identified. The first, *other circumstances*, generally referred to non-weapons related “in progress” calls, for offenses such as assault or breaking and entering. The most common call of this type was for a fight in progress. The *miscellaneous* category, not surprisingly, refers to a wide range of behaviours that could not be classified into the other categories. The most interesting of these was the report of a CEW being used against a “mad bull” that was roaming the streets. Finally, almost 50 of the CEW usage reports (4.5%) did not contain enough information to properly categorize the circumstances and were coded as *not enough information*.

Bivariate analyses

One of the principal issues identified in this report thus far is the circumstances surrounding a CEW deployment. As expected, incidents involving circumstances that could be classified as *combative* were the most likely to result in the CEW being deployed. Conversely, in circumstances that were identified as including *threat cues* the CEW was deployed only a quarter of the time. Put another way, CEWs were much more apt to be used as deterrents in circumstances where *threat cues* were identified and where the situation had not become more aggressive or physical. The same may be said of *weapons* cases, although evaluating the pre-emptive effect of CEWs in these instances is complicated by the fact that many such situations simultaneously included lethal over-watch.

The rates of CEW deployment in cases involving *suicidal*, *fleeing*, or *actively resistant* subjects were roughly similar. The pattern with regard to CEW deployment in cases of *suicidal* subjects was fairly consistent: the CEW was usually deployed:

- a) to incapacitate a subject that had begun to harm him or herself; or

²² Another member present with a firearm.

b) in cases where long periods of fruitless negotiation had convinced members that the subject was determined to hurt him or herself and that there was no other way to bring the situation to an acceptable conclusion.

The circumstances surrounding CEW deployment in the other two types of circumstances (*fleeing* and *actively resistant*) appeared to be more ad hoc. References to specific decision-making factors were largely absent in these reports. Similarly described events often produced different CEW usage types. However, from the information available in the narratives, it was very difficult to discern why some cases of *fleeing* or *active resistance* produced CEW deployments, while others did not.

Table 11: CEW Deployment by Narrative Circumstances²³			
Circumstances	CEW Deployment		<i>Total</i>
	<i>No</i>	<i>Yes</i>	
Combative	102 28.3%	258 71.7%	360
Actively Resistant	72 42.1%	99 57.9%	171
Threat Cues	87 73.1%	32 26.9%	119
Fleeing	44 48.9%	46 51.1%	90
Suicidal	26 45.6%	31 54.4%	57
Noncompliant	55 57.9%	40 42.1%	95
Weapons	66 79.5%	17 20.5%	83
Other Circumstances	34 82.9%	7 17.1%	41
Total	486 47.8%	530 52.2%	1016 100%

Analyses of the specific mode of deployment shed more light on overall CEW usage. Table 12 is intended to be read down, by deployment mode. There was no evidence of *push-stun* abuse based on the analysis of the narratives.

The use of *push-stun mode* only was rarely used outside of contexts involving *combative* or *actively resistant* subjects. This finding is consistent with the perception that *push-stun* mode may be more tactically efficient in close-quarters fighting. The most common use of probes was also in relation to *combative* subjects, but the distribution of probe applications across all

²³ $\chi^2 = 145.21, df = 7, p < .001$

contexts was much more even. It was telling that only 7.5% of *probe* applications were in response to *active resistance*. In order to use probes properly in *combative* or *actively resistant* cases, members normally had to reposition themselves. When they were unable to do so, *push-stun* model was the only remaining option.

	Probe Mode Only		Stun Mode Only		Both Stun and Probe Mode	
	<i>N</i> (226)	%	<i>N</i> (248)	%	<i>N</i> (56)	%
Circumstances						
Combative	76	33.6%	157	63.3%	25	44.6%
Actively Resistant	17	7.5%	73	29.4%	9	16.1%
Threat Cues	25	11.1%	2	0.8%	5	8.9%
Fleeing	40	17.7%	3	1.2%	3	5.4%
Suicidal	26	11.5%	1	0.4%	4	7.1%
Noncompliant	26	11.5%	6	2.4%	8	14.3%
Weapons	15	6.6%	0	0.0%	2	3.6%
Other Circumstances	1	0.4%	6	2.4%	0	0.0%

Table 13 is based on the same data, but is organized across, in relation to the circumstances. Consistent with the findings from Table 12, when CEWs were engaged, *combative* and *actively resistant* subject were most likely to be “stunned.” For the other circumstances, as a matter of practicality, *probe mode* was more common. This was particularly true in cases where members were unable to reach the subject (e.g. *fleeing*), or where tactical prudence dictated that members maintain maximum effective distance (e.g. weapons, suicidal subjects who were usually in possession of weapons, or subjects exhibiting *threat cues*).

	Probes Only		Stun Mode		Both Stun and Probe Mode	
	<i>N</i> (226)	%	<i>N</i> (248)	%	<i>N</i> (56)	%
Circumstances						
Combative	76	29.5%	157	60.9%	25	9.7%
Actively Resistant	17	17.2%	73	73.7%	9	9.1%
Threat Cues	25	78.1%	2	6.3%	5	15.6%
Fleeing	40	87.0%	3	6.5%	3	6.5%
Suicidal	26	83.9%	1	3.2%	4	12.9%
Noncompliant	26	65.0%	6	15.0%	8	20.0%
Weapons	15	88.2%	0	0.0%	2	11.8%
Other Circumstances	1	14.3%	6	85.7%	0	0.0%

The nature of the circumstances that gave rise to CEW usage reports generally does not support the members' claims that CEW use assisted in *avoiding lethal force* in more than half of all CEW incidents in 2008. There were, for example, instances of *combative* subjects who appeared to be "getting the upper hand" in their fight with the member(s). There were also cases involving weapons that could have gone either way, and there were cases where subjects' unwillingness to show their hands could have had tragic consequences. But these cases were few in number. There were no cases of circumstances identified as *active resistance* that would, based on the facts provided in the narratives, have resulted in lethal force. There were, at most, two cases where the subject could be considered so dangerous that lethal force might have been used to prevent escape. Further, it is hard to fathom circumstances under which suicidal subjects, bent on injuring themselves, would be killed. Simply stated, the narrative circumstances were not consistent with the responses to the *avoid lethal force* field on the Form 3996.

The possible extent of injury resulting from CEW deployment was also analyzed. In terms of deployment mode, the proportion of *push-stun mode* cases that involved a medical examination was consistent with the overall proportion of *push-stun mode* cases. On the other hand, the pattern of *probe* usage in cases involving a medical exam differed from the overall pattern. Most noticeably, *probe* incidents involving circumstances identified as *combative* or *actively resistant*, or subjects exhibiting *threat cues*, were comparatively less likely to result in a medical examination. However, *probe* incidents involving *suicidal* subjects were much more likely to result in examination. It is important to note that some of the suicidal subjects were taken for exams not because of injuries resulting from the probes, but because the subjects had been actively attempting to injure themselves prior to the CEW application.

The Commission attempted to analyze the potential relationship between incident type and narrative circumstances, but no link could be established. However, the analysis did show that the reasons for CEW deployment, as represented by narrative circumstances, varied by incident type. For several of the incident types, such as *domestic disputes* and non-domestic *assaults*, *impaired driving*, and *causing a disturbance*, the vast majority of CEW deployments were prompted by *combative* or *actively resistant* behaviour. Incidents taking place in jail (*cell blocks*) were most often precipitated by subject combativeness.

Despite these similarities, however, subtle differences in situational dynamics were sometimes evident. For example, *combative* behaviour was most likely to turn into assaultive violence against the police in non-domestic assault cases. Cell block events, on the other hand, were quite different. Many of these cases were characterized by behaviour that could be described as indicating lower tolerance thresholds on the part of the members. In many cases, the resistance behaviour in cells is a continuation of the conduct that brought the subject to cells in the first place. By the time the subject reached cells, it could be argued that the members had simply had enough. The tolerance for subjects failing to comply with RCMP commands in cells appeared to be lower than in other circumstances.

For other types of incidents, most notably those involving *weapons* or pertaining to *mentally ill* or *suicidal* subjects, the narrative circumstances were much different. Clearly, the dynamics in cases involving weapons were such that CEWs were usually deployed prior to the subject becoming combative or even actively resistant. The picture became more complicated with the addition of mental health/suicide cases, but in general, the primary distinction seemed to be the presence of a weapon and/or subjects actively and seriously attempting to injure themselves.

When weapons were not an issue, CEW deployment tended to be linked to *combative* circumstances. It is worth noting that, in some mental health cases analyzed, the CEW actually served to exacerbate the situation, as disoriented subjects struggled to comprehend what was happening.

Table 14: Narrative Circumstances by Incident Type – CEW Deployments

	Narrative Circumstances								
Incident Type	<i>Combative</i>	<i>Actively Resistant</i>	<i>Threat Cues</i>	<i>Fleeing</i>	<i>Suicidal</i>	<i>Non-compliant</i>	<i>Weapons</i>	<i>Other Circ.</i>	<i>Total</i>
Arrest Warrant Execution	5 25.0%	5 25.0%	2 10.0%	3 15.0%	0 0.0%	4 20.0%	1 5.0%	0 0.0%	20
Assault (non-domestic)	40 58.8%	16 23.5%	3 4.4%	3 4.4%	0 0.0%	5 7.4%	0 0.0%	1 1.5%	68
Cause Disturbance	44 58.7%	17 22.7%	5 6.7%	6 8.0%	0 0.0%	2 2.7%	1 1.3%	0 0.0%	75
Cell Block	31 66.0%	9 19.1%	3 6.4%	0 0.0%	0 0.0%	3 6.4%	0 0.0%	1 2.1%	47
Domestic Dispute	52 69.3%	13 17.3%	3 4.0%	2 2.7%	0 0.0%	4 5.3%	1 1.3%	0 0.0%	75
General Patrol - No complaint	4 21.1%	1 5.3%	3 15.8%	8 42.1%	0 0.0%	3 15.8%	0 0.0%	0 0.0%	19
Impaired Driving	11 61.1%	3 16.7%	0 0.0%	4 22.2%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	18
Mental Health	29 43.9%	8 12.1%	7 10.6%	4 6.1%	13 19.7%	2 3.0%	3 4.5%	0 0.0%	66
Suicidal Person	3 13.0%	2 8.7%	1 4.3%	0 0.0%	12 52.2%	1 4.3%	3 13.0%	1 4.3%	23
Weapons (non-firearm)	3 10.7%	3 10.7%	1 3.6%	2 7.1%	6 21.4%	8 28.6%	5 17.9%	0 0.0%	28
Other	25 34.2%	20 27.4%	3 4.1%	12 16.4%	0 0.0%	7 9.6%	2 2.7%	4 5.5%	73 100.0

COMPARATIVE STATISTICAL ANALYSIS OF CEW REPORTS: 2008 to 2002-2007

In addition to providing descriptive statistics and exploring potentially important relationships, a goal of this report is to highlight on-going changes in the manner in which CEWs are employed. However, as noted in the Commission's Final Report, the robustness and quality of the RCMP CEW database has, and still does, raise a number of concerns and challenges. The Commission's ability to fully analyze and identify trends, both annually and over the long term, is limited by these challenges. As the RCMP CEW database becomes more robust and as members improve their reporting practices, the challenges presented now will hopefully be lessened in the future.

This section analyzes change in two ways. First, all of the results from 2008 are compared with the combined results for 2002-2007. Second, specific variables are tracked annually, from 2002 to 2008, to examine long term patterns in RCMP CEW use. The results of these two sets of analyses are presented below.

Comparing 2008 to 2002-2007

In this section, descriptive statistics comparing 2008 to 2002-2007²⁴ are presented. The most important of these changes was in relation to *deployment mode* (Table 15). As indicated by the "Not Deployed" response category, the use of CEWs as deterrents increased dramatically in 2008. Compared to previous years, CEWs were 72.5% less likely to be deployed. In concert with this rise in the use of the CEW as a deterrent was a decrease in situations where CEWs were deployed in *push-stun* mode. *Probe* mode deployments also decreased, but it was considerably less extreme. The narrative summaries provide no evidence of qualitative changes in the nature of circumstances that produced the rise in using the CEW as a deterrent. It appears that this change in deployment may reflect more of a genuine shift toward a more pre-emptive operational approach; however, in order to establish if this is genuine and not an anomaly specific to 2008, the Commission will continue to monitor this over a number of years.

²⁴ Before turning to these analyses, two points of clarification are in order. First, different statistical techniques were required for the different types of variables used in this study. Changes in nominal (including dichotomous) and ordinal variables, such as *division*, *incident type*, *deployment mode*, and *weapons involvement* were analyzed using chi-square analyses, while changes in continuous variables such as the *mean number of usage reports*, and the *number of cartridges fired* were analyses using t-tests. Second, with regard to interpreting effects, it is important to distinguish between statistically significance and substantive significance. Some of the variables changed significantly (that is, statistically speaking) across the two time periods. However, further examination show that some of these changes were not substantively important. Take, for example, *time of day* (Table 16). While the changes in this variable produced a statistically significant chi-square value, there is an indication that the timing related to CEW use was merely shuffled around. The most notable change for any particular category was the drop from 33.1% to 29.5% (for the *12 Midnight to 4 PM period*). The results for *division* and *incident type* similarly show "shuffling" effects that don't represent fundamental alterations in CEW operations.

Table 15: CEW Deployment Characteristics – Report Comparisons					
	2002-2007 (%)	2008 (%)		2002-2007 (%)	2008 (%)
Taser Model			# of Cartridges Fired		
X26 Model 26000	24.3%	64.5%	0	62.5%	72.4%
M26 Model 44000	75.7%	35.5%	1	34.7%	25.4%
Missing	0.0%	0.0%	2	2.6%	2.1%
Deployment Mode			3	0.2%	0.1%
Not Engaged	21.0%	49.1%	# of Times <i>Push-stun</i> Mode Used		
Probes Only	28.6%	21.9%	0	49.5%	71.0%
<i>Push-stun</i> Mode Only	41.5%	23.3%	1	30.1%	19.8%
Both Probes and <i>Push-stun</i> Mode	8.9%	5.7%	2	13.2%	6.2%
Subject aware of CEW			3	4.7%	2.4%
No	13.8%	8.1%	4	1.4%	0.2%
Yes	86.2%	91.9%	5+	1.1%	0.5%

The results for the *subject aware of CEW* variable were consistent with the apparent increase of the use of CEWs as a deterrent. In 2008, subjects were increasingly made aware of the presence of a CEW. The narrative summaries suggest that subject awareness is sometimes based on the subject's visual recognition of the CEW (as noted by comments such as "Is that a Taser?" and "Are you going to Taser me?"), but most often awareness is prompted by a warning of some sort offered by the member.

	2002-2007 (%)	2008 (%)		2002-2007 (%)	2008 (%)
Time of Day			Incident Type		
12 Midnight to 4 AM	33.1%	29.5%	Arrest Warrant Execution	2.9%	3.5%
4 AM to 8 AM	10.1%	9.6%	Assault (Non-domestic)	10.5%	12.0%
8 AM to 12 Noon	6.0%	5.7%	Cause Disturbance	18.6%	14.0%
12 Noon to 4 PM	9.3%	11.1%	Cell Block	13.3%	8.2%
4 PM to 8 PM	14.4%	17.4%	Domestic Dispute	11.9%	15.1%
8 PM to 12 Midnight	26.7%	26.3%	Firearms Complaint	0.8%	0.8%
Missing	0.4%	0.5%	General Patrol - No Complaint	2.6%	3.3%
Division			Impaired Driving	4.0%	4.6%
Headquarters	0.1%	0.0%	Mental Health	11.0%	11.3%
National Capital Region (A)	0.0%	0.0%	Prisoner Escort	0.8%	0.4%
Newfoundland and Labrador (B)	2.1%	3.8%	Robbery	0.4%	0.6%
Manitoba (D)	9.2%	8.1%	Search Warrant Execution	0.4%	0.4%
British Columbia (E)	34.8%	34.9%	Suicidal Person	3.8%	4.3%
Saskatchewan (F)	11.7%	16.1%	Traffic Stop	1.8%	1.8%
Northwest Territories (G)	4.6%	3.5%	Weapons (Non-firearm)	4.7%	6.6%
Nova Scotia (H)	3.0%	4.4%	Other	11.9%	12.8%
New Brunswick (J)	4.6%	5.0%	Missing	0.6%	0.1%
Alberta (K)	22.5%	20.2%	Number of Members Present		
Prince Edward Island (L)	1.2%	0.7%	1	15.2%	15.8%
Yukon (M)	3.2%	0.9%	2	43.1%	42.9%
Ontario (O)	0.0%	0.0%	3	21.4%	20.8%
Nunavut (V)	2.8%	2.3%	4	11.3%	10.0%
Missing	0.2%	0.1%	5	5.1%	5.4%
Lighting Conditions			6+	3.8%	5.0%
Poor artificial light	16.5%	18.6%	Mean	2.67	2.68
Good artificial light	42.2%	36.3%	Setting		
Day light	18.4%	22.3%	Interior	48.9%	45.0%
Dusk	3.2%	3.6%	Exterior	50.7%	54.6%
Dark	18.0%	18.7%	Missing	0.5%	0.4%
Missing	1.7%	0.4%			

Table 17: Member Operating CEW Characteristics – Report Comparisons					
	2002-2007 (%)	2008 (%)		2002-2007 (%)	2008 (%)
Rank			Usage Reports Per Member		
Constable	56.0%	65.9%	1	60.8%	75.1%
Corporal	3.6%	3.2%	2	21.1%	18.2%
Sergeant	0.8%	0.5%	3	8.4%	4.2%
Staff Sergeant	0.3%	0.6%	4	4.6%	1.3%
Inspector	6.7%	1.4%	5	2.3%	0.5%
Missing	32.6%	28.4%	6	1.0%	0.4%
Duty Type			7	0.7%	0.0%
General Duty	75.4%	88.5%	8	0.5%	0.1%
Highway	1.4%	1.4%	9	0.2%	0.0%
ERT	0.5%	0.3%	10+	0.4%	0.0%
Other	2.5%	2.4%	Missing	0.0%	0.2%
Missing	20.1%	7.5%	Mean	1.79	1.35

While not as drastic as the above changes, 2008 saw a notable increase in the proportion of CEW incidents (where the CEW was deployed) that included *photos taken* of the subject (Table 19). As there was no noticeable increase in the description of injuries, the practice of photographing subjects would seem to reflect an operational change, although this cannot be confirmed through either the data field related to injury descriptions or the narrative summaries.

There were also noteworthy changes in CEW deployment and usage characteristics in 2008. The average *number of reports per member*, *number of cartridges fired*, *number of times push-stun modes was used*, *cycle duration*, and *number of cyclings* all decreased significantly. The decline in the latter two variables is in part due to the change in deployment (i.e. fewer “applications” are consistent with CEWs being engaged less often). If the analysis controls for the effects of deterrence by analyzing only those cases where the CEW was deployed, the significance of the changes is diminished: the difference in the average number of *push-stun* mode applications between the two time periods remains significant,²⁵ but the difference in the average number of cartridges fired is reduced to insignificance.²⁶ Overall, CEW usage has declined, further, multiple uses, in the form of multiple cartridges and multiple *push-stun* applications, has declined. Most notably, in 2008, the occurrence of multiple *push-stun* applications (2 or more) decreased from 20.4% cumulatively between 2002- 2007 to 9.3%.

²⁵ ($t = 3.31, p = 0.001$)

²⁶ ($t = -0.11, p = 0.913$)

Table 18: Subject Characteristics – Report Comparisons					
	<i>2002-2007 (%)</i>	<i>2008 (%)</i>		<i>2002-2007 (%)</i>	<i>2008 (%)</i>
Age			Sex		
Under 20	11.5%	11.2%	Female	8.2%	6.6%
20 - 29	34.9%	40.1%	Male	90.1%	92.9%
30 - 39	29.1%	26.9%	Missing	1.7%	0.5%
40 - 49	17.2%	16.2%	Weapon Involved		
50+	6.0%	5.2%	No	68.3%	63.9%
Missing	1.3%	0.5%	Yes	31.7%	36.1%
Mean	31.7	31.0	Type of Weapon*		
Substance Use Involved			Gun, Rifle, or Shotgun	1.3%	2.0%
No	14.0%	15.8%	Knife	14.3%	17.0%
Yes	86.0%	84.2%	Other Edge Weapon	4.1%	2.6%
Type of Substance*			Inert Projectile	5.1%	6.0%
Alcohol	76.0%	74.0%	Baton, Club, Rod, or Stick	3.7%	6.4%
Cannabis	8.9%	11.5%	Other Weapon	10.4%	11.2%
Cocaine	13.9%	15.1%	Avoid use of lethal force		
Heroin	0.8%	0.5%	No	62.8%	45.9%
Amphetamines	2.9%	2.3%	Yes	37.2%	54.1%
Prescription Drugs	5.6%	8.2%	Avoid injuries		
Other Substance	7.1%	6.0%	No	10.5%	9.9%
			Yes	89.5%	90.1%
* More than 1 answer per report was possible.					

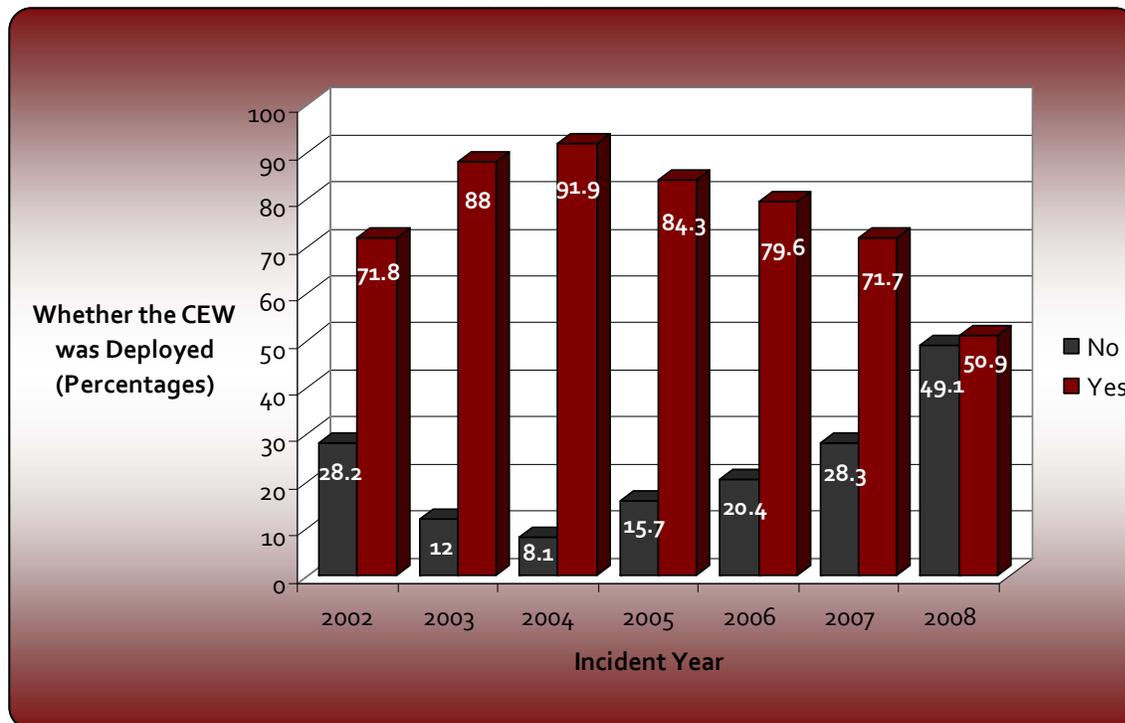
Table 19: Injury and Medical Characteristics – Report Comparisons					
	2002-2007 (%)	2008 (%)		2002-2007 (%)	2008 (%)
Injury Description			Photos Taken		
No Injury	75.2%	82.3%	No	93.0%	92.2%
Puncture/Cut	9.8%	6.3%	Yes	7.0%	7.8%
Burn	5.0%	2.4%	Medical Exam		
Marks	5.4%	4.3%	No	75.5%	78.3%
Redness	1.1%	1.2%	Yes	24.5%	21.7%
Bleeding	0.3%	0.2%	Proportion of Cases – CEW Deployed		
Welts/Bruising/Swelling	0.5%	0.6%	Injury Described		
Chest pains/short of breath	0.3%	0.3%	No	68.6%	65.5%
Abrasions/Irritation/Scrape	0.7%	0.6%	Yes	31.4%	34.5%
Injury after event	0.5%	1.0%	Photos Taken		
Undisclosed Wound/Injury	0.8%	0.6%	No	91.5%	86.1%
Defecation/Urination	0.2%	0.1%	Yes	8.5%	13.9%
Dead	0.1%	0.1%	Medical Exam		
			No	71.0%	67.9%
			Yes	29.0%	32.1%

Annual Comparisons – 2002-2008

While the analyses offered in the previous section are appropriate for comparing 2008 to the aggregate 2002-2007 period, they are not able to determine potentially important trends. Driven by the earlier results, the analysis in this section identifies and evaluates important *trends* in CEW reports.

The relationship between *incident year* and *deployment* shown in Graph 4 shows an important non-linear pattern of results. From 2002 to 2004, the rate of deployment rose from 71.8% to 91.9%. Therefore, in 2004, the majority of situations where CEWs were used resulted in deployment, but since that pinnacle in 2004, the rate of deployment has consistently decreased. By 2007, it had essentially returned to 2002 levels. For 2008, the decline in actual deployments (or, alternatively, the increase in deterrence) has been precipitous. It is also worth noting that 2008 saw a 30% decrease in the overall number of reports. At this time, no straightforward explanation for this drop is available, although it is worth noting that 2007 was a watershed year (in terms of number of reports). It appears that the decrease in reports in 2008 may be a return to 2006 levels of reporting.

Graph 4: Whether the CEW was Deployed per Year

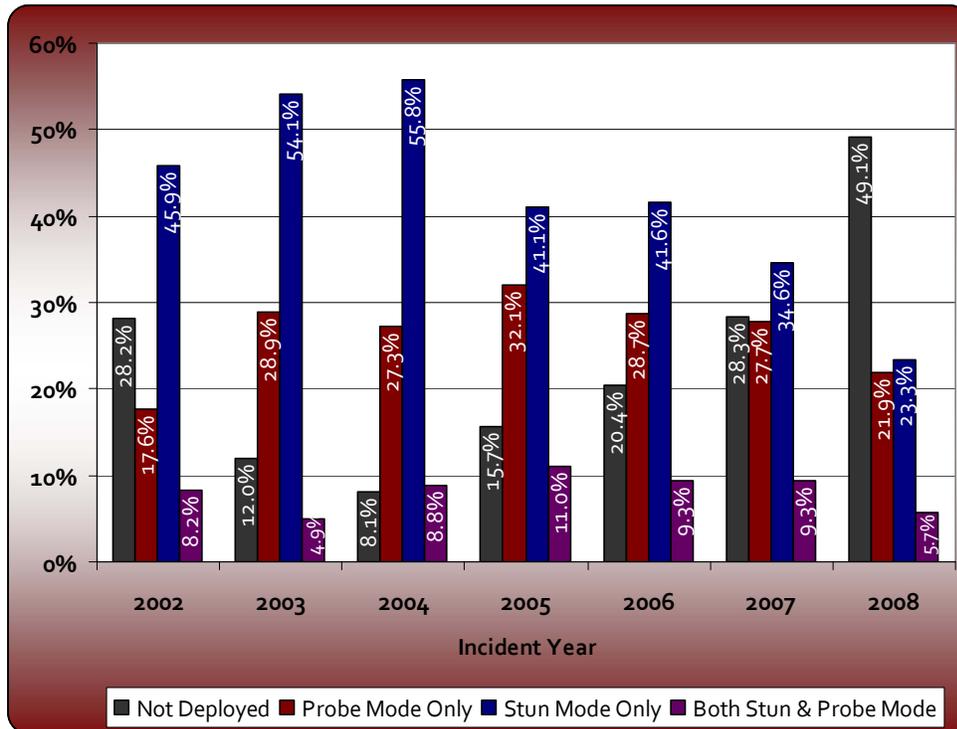


When the Commission further analyzed the deployment modes per year there was a significant difference in the 2008 numbers from previous years. The threatened use of the CEW increased to 49.1% of all usage types for that year compared to just 28.3% in 2007. There also appears to be a decline in deploying the CEW in *push-stun* since 2002, while *probe*-mode deployments remained relatively stable but did show a decrease in 2008. It is interesting to note that deployments in both *push-stun* and *probe* mode have been declining since an apparent peak in 2005.

Table 20: CEW Engagement Mode by Incident Year²⁷

Incident Year	CEW Engagement Mode				Total
	<i>Not Deployed</i>	<i>Probe Mode Only</i>	<i>Stun Mode Only</i>	<i>Both Stun & Probe Mode</i>	
2002	24 28.2%	15 17.6%	39 45.9%	7 8.2%	85
2003	68 12.0%	164 28.9%	307 54.1%	28 4.9%	567
2004	21 8.1%	71 27.3%	145 55.8%	23 8.8%	260
2005	96 15.7%	196 32.1%	251 41.1%	67 11.0%	610
2006	231 20.4%	325 28.7%	470 41.6%	105 9.3%	1131
2007	448 28.3%	439 27.7%	548 34.6%	148 9.3%	1583
2008	543 49.1%	242 21.9%	258 23.3%	63 5.7%	1106
Total	1431 26.8%	1452 27.2%	2018 37.8%	441 8.3%	5342 100%

Graph 5: Percentage of Type of CEW Deployment: Annually



²⁷ $\chi^2 = 514.77, df = 18, p < .001$

The same dramatic linear trend as seen in *incident year* and *deployment* is illustrated for *prevention of lethal force*. In 2002, fewer than 10% of reports indicated that the CEW prevented the use of lethal force. That proportion has grown steadily, and in 2008 it reached more than 50%. The Commission has already noted the problems associated with this particular question on the Form 3996. The trend analysis for *injury description* was not significant, indicating that patterns of injuries have not changed. Nor do the narrative summaries suggest major differences in the context of CEW incidents.

The trend for *photos taken* also exhibits an inclining trajectory, albeit one with a less dramatic slope. The rationale for taking photos was rarely provided in any of the narratives, so it is hard to know why the change has occurred. It is possible that members are making a more concerted effort to be thorough in documenting CEW cases. Regardless of the reason, the systematic nature of the increase suggests that it will continue, but the Commission will continue to track this apparent trend to determine if it is a permanent shift in behaviour or an anomaly.

The results for *medical examination*, *subject aware of CEW*, and *push-stun mode used more than once*, showed less definitive patterns. For example, the increase in the rate of medical examinations for 2008 followed two years of relative stability. Conversely, the proportion of *push-stun* mode applications in 2008 decreased, again after two years where the rate had remained virtually unchanged. It remains to be seen whether the figures for 2008 are anomalies, or whether they mark the beginnings of longer-term trends.

Table 21: Whether Medical Examination was Performed by Incident Year²⁸

Incident Year	Medical Examination		Total
	No	Yes	
2002	44 72.1%	17 27.9%	61
2003	316 63.6%	183 36.7%	499
2004	167 69.9%	72 30.1%	239
2005	350 68.1%	164 31.9%	514
2006	664 73.8%	236 26.2%	900
2007	836 73.7%	299 26.3%	1135
2008	382 67.9%	181 32.1%	563
Total	2759 70.5%	1152 29.5%	3911 100%

²⁸ $\chi^2 = 25.91, df = 6, p < .001$

Table 22: Whether <i>Push-stun</i> Mode Used More Than Once by Incident Year²⁹			
Incident Year	<i>Push-Stun</i> Mode Used More Than Once		<i>Total</i>
	<i>No</i>	<i>Yes</i>	
2002	33 71.7%	13 28.3%	46
2003	211 63.0%	124 37.0%	335
2004	106 63.1%	62 36.9%	168
2005	197 61.9%	121 38.1%	318
2006	333 57.9%	242 42.1%	575
2007	397 57.0%	299 43.0%	696
2008	219 68.2%	102 31.8%	321
Total	1496 60.8%	963 39.2%	2459 100%

²⁹ $\chi^2 = 17.10, df = 6, p = .009$

AT-RISK POPULATIONS

There are two groups of subjects that the Commission tracked separately in order to better understand CEW. The first are youths, defined here as subjects under the age of 17, while the second are subjects identified on Forms 3996 as exhibiting mental health problems or suicidal behaviour. This section of the report uses descriptive statistics to better understand the nature of cases involving these groups.

Youths Aged 13-17

The proportion of CEW reports involving youths increased in 2008 (Tables 24 & 25). While the rate of 5.63% is lower than it has been in previous years (especially 2005 and 2006), it is nonetheless above the average for the whole period (5.20%). More positive were the figures related to CEW deployment in that the usage rate for 2008 was 3.75% of total CEW use, which was the lowest level recorded since 2003.

Because of the relatively small number of cases involving youths, considerable care must be taken in interpreting even descriptive results. Still, there were several notable differences when “youth cases” were compared with the overall results. For example, compared to the overall figures, reports involving youths were proportionately less likely for “E” Division (22.6% for youths vs. 34.9% overall) and proportionately more likely in “F” Division (24.2% vs. 16.1% overall). Youths were more likely to be involved in incident types identified as involving weapons and mental illness, and that youth cases more often involved only one member. No doubt owing to the sensitive nature of these cases, photos were taken after deployment more often for youths.

As illustrated in Table 26, youth reports were more likely than reports overall to involve females and less likely to involve substance abuse. Interestingly, the results also indicate that CEWs avoided the use of lethal force in almost two-third of youth cases. The narrative summaries do not support these characterizations. There was no indication that these cases were qualitatively so different that the use of lethal force would have been that much higher.

Youth were much less likely to experience CEW deployment (33.9% vs. 50.9% overall) but when a CEW was deployed they were more likely to experience the weapon in *probe* mode. Regardless of mode (*probe* or *push-stun*), youths very rarely (2 out of 62 reports) received more than one application of the CEW.

When the Commission analyzed the circumstances surrounding CEW deployment for youths *fleeing*, and not *combative*, was the most direct “cause” of deployment. Again, there was nothing in the narrative summaries to indicate that these subjects posed an elevated risk.

	<i>N</i> (62)	%		<i>N</i> (62)	%
Time of Day			Incident Type		
12 Midnight to 4 AM	12	19.4%	Arrest Warrant Execution	3	4.8%
4 AM to 8 AM	8	12.9%	Assault (Non-domestic)	8	12.9%
8 AM to 12 Noon	4	6.5%	Cause Disturbance	10	16.1%
12 Noon to 4 PM	4	6.5%	Cell Block	1	1.6%
4 PM to 8 PM	11	17.7%	Domestic Dispute	4	6.5%
8 PM to 12 Midnight	22	35.5%	Firearms Complaint	0	0.0%
Missing	1	1.6%	General Patrol - No Complaint	2	3.2%
Division			Impaired Driving	2	3.2%
Headquarters	0	0.0%	Mental Health	10	16.1%
National Capital Region (A)	0	0.0%	Prisoner Escort	0	0.0%
Newfoundland and Labrador (B)	4	6.5%	Robbery	0	0.0%
Manitoba (D)	5	8.1%	Search Warrant Execution	0	0.0%
British Columbia (E)	14	22.6%	Suicidal Person	0	0.0%
Saskatchewan (F)	15	24.2%	Traffic Stop	0	0.0%
Northwest Territories (G)	1	1.6%	Weapons (Non-firearm)	9	14.5%
Nova Scotia (H)	2	3.2%	Other	13	21.0%
New Brunswick (J)	4	6.5%	Missing	0	0.0%
Alberta (K)	13	21.0%	Number of Members Present		
Prince Edward Island (L)	1	1.6%	1	15	24.2%
Yukon (M)	1	1.6%	2	28	45.2%
Ontario (O)	0	0.0%	3	13	21.0%
Nunavut (V)	2	3.2%	4	2	3.2%
Missing	0	0.0%	5	2	3.2%
Lighting Conditions			6+	2	3.2%
Poor artificial light	8	12.9%	Missing	0	0.0%
Good artificial light	17	27.4%	Setting		
Day light	17	27.4%	Interior	22	35.5%
Dusk	1	1.6%	Exterior	39	62.9%
Dark	18	29.0%	Missing	1	1.6%
Missing	1	1.6%			

Table 24: CEW Reports – Subjects Aged 13-17 Years

Age	2002	2003	2004	2005	2006	2007	2008	Total
13	0	0	0	0	0	4	3	7
14	0	0	0	0	5	5	4	14
15	0	1	4	5	11	8	11	40
16	1	5	5	17	19	25	19	91
17	0	4	6	18	36	34	25	123
Total 13-17	1	10	15	40	71	76	62	275
% of Total	1.20%	1.79%	5.84%	6.64%	6.37%	4.85%	5.63%	5.20%

Table 25: CEW Deployment – Subjects Aged 13-17 Years

Age	2002	2003	2004	2005	2006	2007	2008	Total
13	0	0	0	0	0	1	0	1
14	0	0	0	0	4	3	1	8
15	0	1	4	4	8	5	5	27
16	0	3	5	15	15	19	6	63
17	0	2	6	15	29	23	9	84
Total 13-17	0	6	15	34	56	51	21	183
% of Total	0.00%	1.22%	6.36%	6.71%	6.32%	4.53%	3.75%	4.73%

Table 26: Subject Characteristics – Subjects Aged 13- 17 Years					
	<i>N (62)</i>	%		<i>N (62)</i>	%
Sex			Weapon Involved		
Female	7	11.3%	No	40	64.5%
Male	55	88.7%	Yes	22	35.5%
Missing	0	0.0%	Type of Weapon*		
Substance Use Involved			Gun, Rifle, or Shotgun	1	1.6%
No	18	29.0%	Knife	14	22.6%
Yes	44	71.0%	Other Edge Weapon	0	0.0%
Type of Substance*			Inert Projectile	3	4.8%
Alcohol	39	62.9%	Baton, Club, Rod, or Stick	3	4.8%
Cannabis	9	14.5%	Other Weapon	3	4.8%
Cocaine	4	6.5%	Avoid use of lethal force		
Heroin	0	0.0%	No	21	33.9%
Amphetamines	0	0.0%	Yes	41	66.1%
Prescription Drugs	2	3.2%	Avoid injuries		
Other Substance	4	6.5%	No	5	8.1%
			Yes	57	91.9%

* More than 1 answer per report was possible.

Table 27: CEW Use Characteristics – Subjects Aged 13-17 Years					
	<i>N (62)</i>	%		<i>N (62)</i>	%
Taser Model			# of Cartridges Fired		
X26 Model 26000	35	56.5%	0	48	77.4%
M26 Model 44000	27	43.5%	1	14	22.6%
Missing	0	0.0%	2	0	0.0%
Deployment Mode			3	0	0.0%
Not Engaged	41	66.1%	# of Times <i>Push-stun</i> Mode Used		
<i>Probes</i> Only	13	21.0%	0	54	87.1%
<i>Push-stun</i> Mode Only	7	11.3%	1	6	9.7%
Both <i>Probes</i> and <i>Push-stun</i> Mode	1	1.6%	2	2	3.2%
Subject aware of CEW			3	0	0.0%
No	4	6.5%	4	0	0.0%
Yes	58	93.5%	5+	0	0.0%

Mental Health/Suicide

To facilitate analysis, in this section mental health and suicidal incident types are combined under the heading of “mental health.” The proportion of CEW reports involving mental health incidents has remained consistent since 2002. As with overall CEW deployments, the percentage of CEW uses resulting in deployment has declined since 2004. The deployment rate of 55.5% for mental health incidents is higher than it is for non-mental health cases (50.9%), but not to the degree that it would be statistically significant.

There is some concern that the percentage of CEW reports capturing a deployment, and involving a situation that is mental health-related, has increased for three straight years. The rate of 17.1% in 2008 was the highest since 2002. However, the greatest concern for the Commission is the fact that mental health incidents result in more actual deployments than does any other incident type. The reasons for this are unclear.

Further analysis of RCMP CEW usage revealed that there was no evidence in the narrative portion of the Forms 3996 that mental health cases were any more risky than other incident types. However, the proportion of mental health reports involving a weapon was significantly larger than for reports overall, but, as noted earlier, in the majority of these cases the weapon was being used in a self-injurious manner. Otherwise, there was nothing obvious that distinguished the circumstances of mental health incidents, except for the subjects themselves.

The other unresolved issue pertaining to mental health is why so many of these reports originate in “E” Division. It is possible that the statistics for “E” Division reflect provincial-level differences in the sizes of mental health populations; that is, the figure may simply reflect differences in rates of interaction. However, because reliable estimates of mental health populations are unavailable, it is difficult to determine the extent to which “E” Division’s prominence is a related to exposure, or whether some other systematic factors may be at work.

	<i>N</i>	<i>%</i>	<i>% of Mental Health Reports where CEW was Deployed</i>	<i>% Total CEW Reports of Deployment that are Mental Health-related</i>
Year				
2002	14	16.5%	85.7%	19.7%
2003	88	15.5%	90.9%	16.0%
2004	28	10.8%	96.4%	11.3%
2005	101	16.6%	84.2%	16.5%
2006	148	13.1%	81.1%	13.3%
2007	245	15.5%	73.9%	15.9%
2008	173	15.6%	55.5%	17.1%

	<i>N (173)</i>	<i>%</i>		<i>N (173)</i>	<i>%</i>
Time of Day			Division		
12 Midnight to 4 AM	29	16.8%	Headquarters	0	0.0%
4 AM to 8 AM	21	12.1%	National Capital Region (A)	0	0.0%
8 AM to 12 Noon	14	8.1%	Newfoundland and Labrador (B)	11	6.4%
12 Noon to 4 PM	29	16.8%	Manitoba (D)	12	6.9%
4 PM to 8 PM	34	19.7%	British Columbia (E)	88	50.9%
8 PM to 12 Midnight	46	26.6%	Saskatchewan (F)	11	6.4%
Missing	0	0.0%	Northwest Territories (G)	6	3.5%
Number of Members Present			Nova Scotia (H)	7	4.0%
1	17	9.8%	New Brunswick (J)	8	4.6%
2	62	35.8%	Alberta (K)	26	15.0%
3	41	23.7%	Prince Edward Island (L)	2	1.2%
4	24	13.9%	Yukon (M)	0	0.0%
5	17	9.8%	Ontario (O)	0	0.0%
6+	12	6.9%	Nunavut (V)	2	1.2%
Missing	0	0.0%	Missing	0	0.0%
Lighting Conditions			Setting		
Poor artificial light	31	17.9%	Interior	91	52.6%
Good artificial light	69	39.9%	Exterior	82	47.4%
Day light	50	28.9%	Missing	0	0.0%
Dusk	6	3.5%			
Dark	17	9.8%			
Missing	0	0.0%			

Table 30: Subject Characteristics – Mental Health Incidents					
	<i>N (173)</i>	%		<i>N (173)</i>	%
Age			Sex		
Under 20	22	12.7%	Female	26	15.0%
20 - 29	60	34.7%	Male	147	85.0%
30 - 39	40	23.1%	Missing	0	0.0%
40 - 49	35	20.2%	Weapon Involved		
50+	15	8.7%	No	70	40.5%
Missing	1	0.6%	Yes	103	59.5%
Mean	32.4		Type of Weapon*		
Substance Use Involved			Gun, Rifle, or Shotgun	2	1.2%
No	49	28.3%	Knife	59	34.1%
Yes	124	71.7%	Other Edge Weapon	12	6.9%
Type of Substance*			Inert Projectile	10	5.8%
Alcohol	81	46.8%	Baton, Club, Rod, or Stick	10	5.8%
Cannabis	20	11.6%	Other Weapon	32	18.5%
Cocaine	24	13.9%	Avoid use of lethal force		
Heroin	0	0.0%	No	61	35.3%
Amphetamines	3	1.7%	Yes	112	64.7%
Prescription Drugs	42	24.3%	Avoid injuries		
Other Substance	17	9.8%	No	22	12.7%
			Yes	151	87.3%

* More than 1 answer per report was possible.

Table 31: Medical Characteristics – Mental Health Incidents					
	<i>N (173)</i>	%		<i>N (173)</i>	%
Injury Description			Photos Taken		
No Injury	138	79.8%	No	158	91.3%
Puncture/Cut	16	9.2%	Yes	15	8.7%
Burn	3	1.7%	Medical Exam		
Marks	9	5.2%	No	62	35.8%
Redness	3	1.7%	Yes	111	64.2%
Bleeding	0	0.0%	Proportion of Cases – CEW Engaged (N = 96)		
Welts/Bruising/Swelling	0	0.0%	Injury Described		
Chest pains/short of breath	0	0.0%	No	61	63.5%
Abrasions/Irritation/ Scrape	2	1.2%	Yes	35	36.5%
Injury after event	1	0.6%	Photos Taken		
Undisclosed Wound/Injury	0	0.0%	No	83	86.5%
Defecation/Urination	1	0.6%	Yes	13	13.5%
Dead	0	0.0%	Medical Exam		
			No	21	21.9%
			Yes	75	78.1%

Table 32: CEW Use Characteristics – Mental Health Incidents					
	<i>N (173)</i>	%		<i>N (173)</i>	%
Taser Model			# of Cartridges Fired		
X26 Model 26000	114	65.9%	0	102	59.0%
M26 Model 44000	59	34.1%	1	65	37.6%
Missing	0	0.0%	2	5	2.9%
Deployment Mode			3	1	0.6%
Not Deployed	77	44.5%	# of Times Push-stun Mode Used		
<i>Probes</i> Only	56	32.4%	0	133	76.9%
<i>Push-stun</i> Mode Only	25	14.5%	1	26	15.0%
Both <i>Probes</i> and <i>Push-stun</i> Mode	15	8.7%	2	5	2.9%
Subject aware of CEW			3	8	4.6%
No	30	17.3%	4	0	0.0%
Yes	143	82.7%	5+	1	0.6%

APPENDIX

<i>Whether Push-stun Mode Used More Than Once by Incident Year</i>			
	<i>Push-stun Mode Used More Than Once</i>		
Incident Year	<i>No</i>	<i>Yes</i>	<i>Total</i>
2002	33 71.7%	13 28.3%	46
2003	211 63.0%	124 37.0%	335
2004	106 63.1%	62 36.9%	168
2005	197 61.9%	121 38.1%	318
2006	333 57.9%	242 42.1%	575
2007	397 57.0%	299 43.0%	696
2008	219 68.2%	102 31.8%	321
Total	1496 60.8%	963 39.2%	2459 100%
$\chi^2 = 17.10, df = 6, p = .009$			

Narrative Circumstances by Incident Type – CEW Deployments

	Narrative Circumstances								
Incident Type	<i>Combative</i>	<i>Actively Resistant</i>	<i>Threat Cues</i>	<i>Fleeing</i>	<i>Suicidal</i>	<i>Non-compliant</i>	<i>Weapons</i>	<i>Other Circ.</i>	<i>Total</i>
Arrest Warrant Execution	5	5	2	3	0	4	1	0	20
	25.0%	25.0%	10.0%	15.0%	0.0%	20.0%	5.0%	0.0%	
Assault (non-domestic)	40	16	3	3	0	5	0	1	68
	58.8%	23.5%	4.4%	4.4%	0.0%	7.4%	0.0%	1.5%	
Cause Disturbance	44	17	5	6	0	2	1	0	75
	58.7%	22.7%	6.7%	8.0%	0.0%	2.7%	1.3%	0.0%	
Cell Block	31	9	3	0	0	3	0	1	47
	66.0%	19.1%	6.4%	0.0%	0.0%	6.4%	0.0%	2.1%	
Domestic Dispute	52	13	3	2	0	4	1	0	75
	69.3%	17.3%	4.0%	2.7%	0.0%	5.3%	1.3%	0.0%	
General Patrol - No complaint	4	1	3	8	0	3	0	0	19
	21.1%	5.3%	15.8%	42.1%	0.0%	15.8%	0.0%	0.0%	
Impaired Driving	11	3	0	4	0	0	0	0	18
	61.1%	16.7%	0.0%	22.2%	0.0%	0.0%	0.0%	0.0%	
Mental Health	29	8	7	4	13	2	3	0	66
	43.9%	12.1%	10.6%	6.1%	19.7%	3.0%	4.5%	0.0%	
Suicidal Person	3	2	1	0	12	1	3	1	23
	13.0%	8.7%	4.3%	0.0%	52.2%	4.3%	13.0%	4.3%	
Weapons (non-firearm)	3	3	1	2	6	8	5	0	28
	10.7%	10.7%	3.6%	7.1%	21.4%	28.6%	17.9%	0.0%	
Other	25	20	3	12	0	7	2	4	73
	34.2%	27.4%	4.1%	16.4%	0.0%	9.6%	2.7%	5.5%	100.0

Cartridge Usage Characteristics – Report Comparisons

	2002-2007 (%)	2008 (%)		2002-2007 (%)	2008 (%)
Distance			Method of sighting		
0	83.8%	100.0%	Pointed	50.5%	57.0%
1	2.6%		Aimed	48.2%	41.5%
2	4.8%		Missing	98.7%	1.5%
3	5.5%		Verbal Command Given		
4+	3.3%		No	61.3%	56.4%
Spread			Yes	38.7%	43.6%
0-20	36.4%	36.4%	Clothing Barrier - Upper		
21-30	25.1%	23.6%	No	22.0%	27.3%
31-40	14.1%	14.8%	Yes	78.0%	72.7%
41-50	7.8%	5.5%	Clothing Barrier - Lower		
51-60	4.3%	4.8%	No	27.4%	28.8%
61+	5.4%	7.6%	Yes	72.6%	71.2%
Missing	6.9%	7.3%	Skin Penetration - Upper		
Duration			No	36.3%	41.8%
0	4.3%	5.8%	Yes, remained embedded	46.8%	39.4%
1	1.7%	1.8%	Yes, not remain embedded	17.0%	18.8%
2	2.2%	6.7%	Skin Penetration - Lower		
3	5.2%	4.5%	No	46.1%	52.4%
5	85.1%	80.3%	Yes, remained embedded	36.1%	32.1%
Missing	1.4%	0.9%	Yes, not remain embedded	17.8%	15.5%
Cycled			Point of Impact - Upper		
0	2.7%	5.2%	No Impact	11.5%	11.5%
1	66.2%	67.0%	Chest/Abdomen	45.8%	41.8%
2	19.7%	20.3%	Back	23.0%	27.6%
3+	10.5%	7.3%	Shoulder/Arm	16.3%	16.1%
Missing	0.8%	0.3%	Lower Body	2.5%	1.8%
Point of Aim			Head	0.9%	1.2%
Chest/Abdomen	61.8%	62.1%	Point of Impact - Lower		
Back	26.5%	27.3%	No Impact	18.2%	22.1%
Shoulder/Arm	3.6%	3.3%	Chest/Abdomen	31.5%	30.6%
Lower Body	3.2%	4.2%	Back	26.6%	24.5%
Head	0.0%	0.3%	Shoulder/Arm	8.6%	7.6%
Missing	4.9%	2.7%	Lower Body	15.0%	15.2%
Impediments			Head	0.1%	0.0%
No Impediment	35.2%	26.4%	Number of Probe Impacts		
Clothing	29.5%	42.4%	0 Probe Impact	9.4%	11.5%
Moving Target	27.2%	22.4%	1 Probe Impact	10.8%	10.6%
Other Impediment	8.1%	8.8%	2 Probe Impact	79.8%	77.9%