

CITY OF HOUSTON

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CONDUCTED ENERGY DEVICE PROGRAM PERFORMANCE AUDIT

CED PROGRAM – PERFORMANCE AUDIT

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CED PROGRAM – PERFORMANCE AUDIT

EXECUTIVE SUMMARY

BACKGROUND

On November 3, 2004, the City of Houston (City) contracted to purchase 4,227 Conducted Energy Devices (CEDs) with the related consumables, including CED cartridges and other supplies for \$4.68 million. The City's contract for the Taser X-26 model CEDs has a five-year "no questions asked" replacement warranty.

A CED is the technically correct name for the device commonly referred to by the brand name Taser. In the *probe mode* this device propels probes that are attached to wires with a 21 foot range that conducts sufficient energy to cause neuromuscular incapacitation (i.e. uncontrolled muscle contractions that override an individual's voluntary motor response). In the *drive stun mode* a CED with no cartridge or a spent cartridge is placed in direct contact with the body and is discharged. The *drive stun mode* is generally the secondary option used by the officer. A cycle is defined as each time the officer pulls the trigger on the CED. The duration of a CED electrical discharge is a minimum of five seconds per cycle. CEDs have a computerized memory that tracks deployment data which can be downloaded for later review.

In conjunction with the purchase of the CEDs, HPD developed a CED Program that included CED policies, procedures, and related training for the patrol officers. HPD's policies state that CEDs are classified as **intermediate weapons**¹ and are **not a substitute for lethal force**. HPD's CED Program has the following objectives:

- Assist officers in securing and controlling combative individuals,
- Reduce injuries to officers and suspects,
- Reduce financial impact of civil liability in use-of-force calls for service/incidents, and
- In limited situations, provide an alternative to deadly force.

OBJECTIVES AND SCOPE

Objectives of our HPD CED Program Performance Audit were as follows:

- Determine compliance with procurement laws, ordinances, the City's Policies and Procedures, HPD Standard Operating Procedures, and General Orders (GOs).
- Determine to what extent the HPD CED Program objectives were being met.
- Determine if HPD was effectively managing the CED Program.
- Determine compliance with CED Program Policies and Procedures.
- Determine the HPD CED practices and compare them to the Police Executive Research Forum's (PERF) National Guidelines for CEDs.
- Perform a statistical analysis to analyze the frequency and variables of HPD CED calls for service/incidents for any notable patterns, aberrations, and/or adverse trends which may warrant further study.

¹ Intermediate weapons are defined by HPD as:

- Baton
- Oleoresin Capsicum (OC) spray (commonly known as pepper spray)
- Soft impact weapon (i.e. Beanbag Shotgun)
- CED (i.e. stun gun or Taser)

The scope of the engagement was the period beginning January 1, 2000 through June 30, 2007 (the Scope period) with the CED Program being initiated in December 2004. The audit did not examine the issue of whether exposure to a CED deployment (or multiple deployments) has medical implications.

OVERALL CONCLUSION

The CED has been a **very effective intermediate weapon** and has been widely accepted by most of the HPD patrol officers who were issued a CED. Additionally, HPD met its CED program objectives related to assisting officers in securing and controlling combative individuals. The chances of being subjected to a CED deployment are negligible. The CED is **not** deployed in over 99% of the calls for service/incidents. On 53 of 1,284 occasions the officers used the CED as an alternative to deadly force even though they were not required to do so by HPD policies and State law.

HPD has been effectively managing the CED Program and was generally in compliance with HPD and the City's Policies and Procedures, as well as the related procurement laws. HPD's CED practices were used to develop the PERF National Guidelines. However, HPD plans to revise its CED training to reflect certain CED situations encountered in the field. Also, HPD needs to provide additional training to officers who were reluctant to deploy their CEDs because of the related reporting requirements.

Over the course of conducting the statistical analysis, **the statistical team found that the available data contained some patterns and/or aberrations related to gender, race, and geography**. The lack of adequate data on suspect and officer characteristics (e.g., officer and suspect physical size, suspect criminal history) resulted in crucial potential explanatory factors being absent from the statistical analysis. Consequently, it is important to exercise considerable caution when making any inferences from the CED statistical analysis. With this caveat in mind, the results from the CED analysis suggest that certain combinations of officer and suspect characteristics resulted in an increased probability of CED deployment. Depending on the race of the officer and of the suspect, it was possible to see significant increases and/or decreases in the rate of CED deployment.² However, some of these differences disappeared or changed when looking at certain results at the City Council District level because there are more data items at the City Council District Level. Rather than making inaccurate inferences by using smaller subsets such as HPD Divisions, City Council Districts have the advantage of representing distinct regions of the City that are drawn with the approval of the U.S. Department of Justice (due to aspects of the Voting Rights Act); being mutually exclusive (for example, events can occur in one, and only one Council District); and being independent of any HPD or researcher decisions (Council Districts cannot be altered to affect the outcome of the analysis). In short, the use of City Council Districts as a control allowed the results to be analyzed more objectively.

Furthermore, HPD Management indicated that the City Legal Department would not provide the necessary data to assess HPD's objective related to reducing the financial impact of civil liabilities in use-of-force calls for service/incidents.

² See PART III - TABLE 7a THROUGH 7c CED DEPLOYMENTS BY CITY COUNCIL DISTRICT for details.

The ambiguity in the statistical findings extended to the injuries analysis as well. For example, during the Scope period, there was inadequate data available to make a determination related to suspects' injuries to compare with the CED cases. On the other hand, for officer injuries, where data existed, we found that the reduction in injuries to officers began prior to the introduction of the CED and related CED policies. **This downward trend of the reduction in injuries to officers continued throughout the Scope period.** With the passage of time (and more data) it will be possible to make a determination as to whether there are further reductions in officer injuries consistent with the timing of the CED policy.

Despite cooperation from HPD in providing the data, antiquated data systems, and a general lack of administrative staffing complicated the completion of the overall analysis. It should be noted that HPD is in the process of addressing these data management and processing issues by transitioning to a new database system, which should make data retrieval much easier. However for this particular study, data acquisition and processing problems associated with some data made it impossible to adequately control for important contextual variables in the statistical analysis.

ASSESSMENT

The assessment was performed by the Audit Team that consisted of experts from Mir•Fox & Rodriguez, P.C. (MFR); the University of Houston, Center for Public Policy (UH CPP); Rice University; University of San Francisco; Sam Houston State University, College of Criminal Justice (SHSU CCJ); and Prototype, Fusion & Modeling, LLC (PFM). MFR led the Audit Team and provided the performance audit, accounting, information system (IS), and internal control expertise. UH CPP provided statistical expertise and coordinated with mathematical experts from Rice University and the University of San Francisco. UH CCP also coordinated with Geospatial and IS experts from PFM. SHSU CCJ provided criminology and mathematical expertise.

The Audit Team performed various tasks including:

- Analyzed HPD CED GOs and related Policies and Procedures,
- Reviewed data management processes,
- Analyzed CED deployments,
- Reviewed Geo-Coordinates,
- Reviewed CED related inventory,
- Determined the effectiveness of a CED in controlling a suspect,
- Analyzed the number of CED cycles used when deployed,
- Analyzed the impact of alcohol and/or drugs consumed by suspects who were subsequently subjected to a CED deployment,
- Reviewed injuries to officers,
- Reviewed HPD Training Academy (Academy) CED related training,
- Analyzed suspect complaints related to CED deployment,
- Determined who initiated the call for service as well as the nature of the call related to CED deployment,
- Analyzed the use of a CED instead of deadly force,
- Performed statistical analysis of call for service/incident reports for the Scope period, and
- Conducted HPD Officer Focus Group Sessions.

Based upon the results of performing these tasks, the Audit Team's assessment is summarized as follows:

HPD CED GOs and Policies and Procedures

HPD's CED policies were effective in accomplishing the CED program objectives. The majority of the calls for service/incident reports reviewed³ indicated that the officer used the CED in compliance with HPD policies.

The Audit Team was able to review all 1,284 of the hard copy CED incident reports that were recorded. During the audit we noted that an Executive Assistant Police Chief was assigned to oversee the CED Program and he was reviewing each CED incident report. However, documented evidence of his review was not present in the early stages of the CED program. According to HPD Management, other incident reports are not subjected to the same review and signature process.

Data Management Processes

The process for collecting the data raised some important issues that affected the statistical analysis for this audit. The Audit Team found HPD personnel to be fully cooperative in all requests for information. However, there were complications in acquiring and assembling the data as the data collection process was underway.

For example, HPD fielded approximately 2.8 million calls for service that resulted in approximately 1.4 million service/incident reports which were recorded in multiple databases during the Scope period. Approximately 48% of the 1.4 million electronic police calls for service/incident reports did not contain suspect information (e.g., the incident was reported after the suspects had long left the scene of the incident, no suspect was involved in the incident, and/or no information on the suspect was collected). The addition of key explanatory variables (suspect race/ethnicity, Uniform Crime Report (UCR) code, zip code of incident location, City Council District of incident location) resulted in the exclusion of approximately 110,000 cases while the lack of officer data for an incident led to the exclusion of approximately 50,000 additional cases. This left the Audit Team with a final analysis population of approximately 570,000 merged records (the Analysis Population).

The original electronic data was of poor quality, incomplete, inconsistent, and retrieval was difficult. The physical size (weight, height) of the suspect was often not recorded in either the electronic or hardcopy reports and, if it was, we noted that the majority of the suspects were 175 pounds. Included in the approximately 730,000 calls for service/incident reports were 1,284 incidents where a CED was deployed. Only 951 (75%) of the 1,284 CED deployments could be statistically analyzed primarily because of the data merging challenges. In summary, the Audit Team reviewed all 1,284 of the hardcopy CED calls for service/incident reports. They did not include all of the 1,284 reports in the statistical analysis because CED incidents that were lost during the electronic data merges would have biased the results of the analysis.

³ One of the difficulties in conducting any research and/or analysis based on incident reports is that the researcher does not have the capability of independently assessing the accuracy of what is reflected in the reports.

The current structure for data management is organizationally deficient and under-staffed. This combination of factors may produce inefficiencies in data transmission, increases in measurement and coding errors, and an overall inability to create a template for connecting disparate pieces of information to support overall HPD Management processes. The implications are even more severe, however, if there are efforts to increase situational awareness for HPD officers that require data in real time.

HPD was fully aware of these data management challenges, but had insufficient resources to resolve this issue. We understand that HPD is firmly committed and is actively engaged in identifying a vendor to replace its present online offense report writing system with a more efficient and effective version or model than what is currently in place.

CED Deployments

As of 2006, the City's population had the following racial/ethnic distribution: Latino (41.9%), Anglo (27.6%), African American (24.7%), and Other Groups (5.8%).

The Audit Team compared the **race/ethnicity of suspects** in the **Total Service/Incident Reports Analysis Population** to the race/ethnicity of the suspects noted by HPD in the **CED Service/Incident Reports**. The results of our comparison are as follows:

Suspect's Race/Ethnicity	Total Service/Incident Reports Analysis Population	CED Service/Incident Reports	Difference
African American	46.0 %	66.9 %	20.9 %
Latino	28.2 %	23.5 %	-4.7 %
Anglo	24.4 %	9.0 %	-15.4 %
Other Groups	1.4 %	0.6%	-0.8 %

Based on the above analysis, African American suspects were involved in a proportionally greater number of total Service/Incident Reports analyzed as well as CED service/incident reports. In addition, the proportion of CED Service/Incident Reports was 20.9% more than the total service/incident reports. The Latino, Anglo, and Other Group suspects were involved in proportionally less service/incident reports.

According to HPD, the Department-wide officer demographics during the scope period were as follows:

Officer's Race/Ethnicity	Average for the Period January 1, 2005 through June 30, 2007			
	Male Classified	Female Classified	Total Classified	% of Total
Anglo	1,268	126	1,394	53.2 %
Latino	529	49	578	22.0 %
African American	451	98	549	21.0 %
Other Groups	95	4	99	3.8 %
Total	2,343	277	2,620	100.0 %

The Audit Team compared the **race/ethnicity of officers** in the **Total Service/Incident Reports Analysis Population** to the **race/ethnicity of the officers** noted by HPD in the **CED Service/Incident Reports**. The results of our comparison are as follows:

Officer's Race/Ethnicity	Total Service/Incident Reports Analysis Population	CED Service/Incident Reports	Difference
African American	25.1 %	17.3 %	-7.8 %
Latino	24.3 %	27.9 %	3.6 %
Anglo	46.2 %	52.3 %	6.1 %
Other Groups	4.4 %	2.5 %	-1.9 %

Based on the above analysis, the positive values in the Difference column indicate the officer racial/ethnic group was involved in a proportion of CED events that was larger than the proportion represented by it for all HPD incidents in the Analysis Population. Negative values indicate the officer racial/ethnic group was involved in a proportion of CED events that was smaller than the proportion represented by it for all HPD incidents in the Analysis Population.

Our analysis further indicated that 803 officers deployed their CED for a total of 1,417 deployments during the Scope period that resulted in 1,284 service/incident reports summarized as follows:

Number of Times an Officer Deployed a CED	Total Number of Officers	Total Number of Deployments
1	492	492
2	156	312
3	90	270
4	26	104
5	23	115
6	7	42
7	1	7
8	4	32
9	2	18
10	0	0
11	0	0
12	1	12
13	1	13
Total	803	1,417

In the table above it should be noted that more than one officer may have deployed their CED related to an individual service/incident report.

Geo-Coordinates

Within the Analysis Population, only 1,020 (79%) of the 1,284 CED incident reports could be analyzed primarily because of incomplete electronic data. Furthermore, the geographic information was missing from 30 of the 1,020 electronic CED call for service/incident reports. In addition, there was contradictory geographic information appearing in about 1,000 of the valid electronic call for service/incident reports in the Analysis Population. Among the errors that we noted, the key map address and zip code listed for a single call for service/incident did not coincide geographically. In some cases, the locations were up to 20 miles apart. According to HPD Management, the reporting address and the incident address may not be the same.

CED Inventory

HPD requires each patrol officer to carry a CED with two cartridges on their Sam Browne (tool belt). The CED and related cartridges each have a unique bar code serial number that HPD maintains in a database at the Academy. MFR randomly selected 100 officers and recorded the serial numbers on their CED and cartridges. MFR traced all 100 of the CED serial numbers to the database records without exception. The database containing the inventory of cartridge serial numbers was not current. However, MFR traced the serial numbers for 110 of the 173 cartridges to the inventory records. We understand that the officer in charge of CEDs at the Academy plans to trace the remaining serial numbers to the inventory records once the records have been updated.

MFR noted that 26 of the 100 officers selected were not carrying their second CED cartridges on their tool belts as required by GO # 400-26. In addition, one of the 26 officers did not have either cartridge, meaning that their CED could not be deployed in the probe mode.

MFR further noted that the Digital Power Magazines (DPMs), commonly known as batteries, were being replaced on the CED devices at a high frequency. The lithium battery in the DPM does not appear to have the 10 year shelf life as claimed by the manufacturer.

As a partial test of the DPM, officers were required to spark test their CED at roll call. We noted that neither the roll call supervisors nor the officers attending roll call were in compliance with HPD spark test procedures. To obtain a replacement DPM, HPD requires the officers to go through a process that takes the officer away from his/her duties.

Effectiveness of CED in Controlling a Suspect

During our audit of the call for service/incident reports that resulted in CED deployments, the device was reported as being effective in controlling the subject in 77% of the calls. **It should be noted that this does not mean that the device was effective in controlling the suspect's behavior with initial deployment or only one trigger pull or cycle of the CED.** In some cases, the officer deployed the device in probe mode and then resorted to using the CED in the drive stun mode. In other cases, the officer used multiple cycles in the probe mode to gain control of the suspect.

The reasons given in the call for service/incident reports that the CED was not effective in securing and controlling the suspect are summarized as follows:

Reason for CED being ineffective	Percent of total number of calls for service/incidents
The suspect appeared to be either under the influence of alcohol and/or drugs or experiencing some form of mental health crisis	11 %
Suspect's clothing (i.e. was too loose and/or too thick for the probes to penetrate)	4 %
One or both of the probes missed the suspect	4 %
Probes hit the subject who subsequently pulled them out	2 %
CED was defective and did not fire the probes	2 %
Total Percentage	23 %

Number of CED Cycles Used When Deployed

When the trigger is initially pulled to deploy the probes which attach to a suspect, a five second pulse of electrical energy is transmitted into the suspect. This is known as the initial or first cycle. Should the suspect not comply with the officer's directions when the initial cycle is administered, the officer can continue to pull the trigger and administer additional pulses provided the probes are still attached to the suspect. The second and all subsequent trigger pulls transmit a minimum five second electrical pulse each time.

During our audit of the call for service/incident reports related to the deployment of the CEDs, we noted the following number of cycles being used:

Number of Cycles	Percent of the total reports reviewed
One cycle (the initial cycle)	38 %
Two cycles	31 %
Three cycles	15 %
Four cycles	5 %
Five cycles	3 %
Six through ten cycles	5 %
Greater than ten cycles	3 %
Total Percentage	100%

HPD has a policy that requires the officer to reevaluate after each cycle; however, the policy does not limit the number of cycles that should be deployed. While there are legitimate reasons for not limiting an officer's discretion to use multiple cycles, it is suggested that incidents in which the CED is cycled more than five times be closely reviewed for compliance with applicable GOs.

Impact of Alcohol and/or Drugs Consumed by Suspects

In 15% of the calls for service/incidents, the call for service/incident reports indicated that the subject appeared to be under the influence of alcohol. In 27% of the calls for service/incidents, the reports stated that the subject appeared to be under the influence of drugs and/or possessing drugs.

Officers did not note in their written call for service/incident reports whether the subjects appeared to be under the influence of drugs and/or alcohol in 58% of the calls. The Audit Team did not attempt to determine whether the officer, if asked, would have said that drugs and/or alcohol might have been a contributing factor to the behavior which resulted in the need for the deployment of the CED. However, it is highly likely that a significant percentage of these subjects were under the influence of drugs and/or alcohol given the behavior that was described by the officer in the call for service/incident report.

Injuries to Officers

Since June 2004, the estimated total number of Workers' Compensation claims by the officers decreased by an accumulated approximate 20%. This began in May 2003. Both the decreases in claims and claim amounts began prior to the incorporation of the CED program at HPD. This downward trend continued through the Scope period. With the passage of time it may be possible to determine if there was yet further reduction in the number of Workers' Compensation claims consistent with the CED policy.

Year	Number of Claims	Total Claim Amount
2000	255	\$ 1,494,341
2001	278	1,668,954
2002	276	1,095,361
2003	283	2,233,479
2004	271	1,563,661
2005	258	1,152,195
2006	233	738,028
January through June 2007	117	\$ 105,900

HPD Training Academy-CED Training

A SHSU CCJ member of the Audit Team attended the actual training received by cadets at the Academy. The students and instructors were observed during the classroom and hands-on portions of the training by the same SHSU CCJ team member who had read and analyzed the CED service/incident reports. During the observation, the team member paid particular attention to compliance with CED policy and whether any concerns noted during the analysis of the reports might be attributable to or influenced by the training provided.

There were numerous issues involved in the training of cadets on the use of the CED. There was a lack of emphasis placed on the potential danger to a suspect when numerous cycles are used after a CED was deployed, particularly on a suspect who might be at risk for excited delirium. According to the HPD GOs, excited delirium is a state of extreme mental and physiological excitement, characterized by extreme agitation, hyperthermia, hostility, exceptional strength, or endurance without fatigue. Additional concerns center around the lack of training which more closely resembles actual situations such as a moving target, heavy clothing, cuffing a suspect who has been subjected to a CED deployment, and transitioning to another type of use-of-force if multiple cycles prove ineffective. Also, while each cadet deployed the CED, a demonstration of true proficiency under field conditions was not observed. **There was no requirement for every cadet to experience a CED deployment on themselves; however, the CED was deployed on volunteers from the cadet class.**

Suspect Complaints Related to CED Deployments

There were 55 complaints filed pertaining to 59 officers. The disposition of complaints is summarized as follows:

CED Complaints⁴	Total
No Disposition	12
Exonerated	13
Information	1
Never Formalized	2
Not Sustained	9
Open Case	4
Sustained	3
Unfounded	11
Total CED Complaints	55

⁴ **No Disposition** – CED activity was not the focus of the complaint and the investigation found CED usage to be proper and appropriate.

Exonerated: Incident occurred, but was lawful and proper.

Information: No evidence to prove that an incident even occurred.

Never Formalized: Complainant refused to make a formal written statement or if a written statement was made, refused to swear or affirm that the statement was true (notarized).

Not Sustained: insufficient evidence to either prove or disprove justification for the incident.

Open Case: Investigation is on-going.

Sustained: Evidence is sufficient to prove the allegation.

Unfounded: Allegation is false or not factual.

The complaint analysis indicates that complaints in which a CED is mentioned have a distinctive racial propensity as follows:

Officer's Race/Ethnicity	Total Classified Officers	Percentage of Total	Total Complaints by Race/Ethnicity	Percent By Complaints	Difference
Anglo	1,394	53.2 %	27	45.8 %	7.4 %
Latino	578	22.0 %	9	15.2 %	6.9 %
African American	549	21.0 %	20	33.9 %	-12.9 %
Other	99	3.8 %	3	5.1 %	-1.3 %
Total	2,620	100.0 %	59	100.0 %	

Based on the above analysis, the positive values in the Difference column indicate the officer racial/ethnic group was involved in a proportion of CED complaints that was less than the percentage of Total Classified Officers. Negative values indicate the officer racial/ethnic group was involved in a proportion of CED complaints that was larger than the corresponding percentage of the Total Classified Officers.

Initiation and Nature of Calls for Service

Based on our review of the call for service/incident reports, the source of the calls related to CED deployments was as follows:

Source of Call	Percentage of Total Calls
Officer dispatched	55 %
Officer initiated contact with suspect	33 %
Traffic related contact	12 %
Total	100 %

During our audit of the call for service/incident reports related to CED deployment we noted that the nature of the original calls for service could be summarized as follows:

Nature of Call	Percentage of Total Calls
Drug related (most calls were initiated by the officer)	15 %
Disturbance	15 %
Assault	13 %
Misdemeanors (e.g. driving while intoxicated, criminal mischief, and theft)	13 %
Traffic offense	11 %
Crisis intervention for suspects having a mental health issue	11 %
Family violence	7 %
Criminal trespass	6 %
Other felonies	6 %
Automobile theft	3 %
Total Calls for Service	100 %

The total CED deployments during the Scope period represent 0.47% of the approximately 273,000 individuals who were incarcerated in the City's Jail system.

Use of a CED Instead of Deadly Force

The Audit Team identified the following inconsistencies related to the CED being an alternative to deadly force such as:

- According to the October 20, 2004 Request for Council Action (RCA), the CEDs were “to be used as an alternative to deadly force”.
- One of the objectives of the HPD CED Program was “in limited situations, provide an alternative to deadly force”.
- As part of CED training cadets were shown a videotape. In the video tape the Police Chief stated, in essence, that after introduction of CEDs in Phoenix that officer involved shootings went down by one-half and that it (CED use) was an alternative to deadly force.
- However, according to HPD GOs, CEDs are classified as intermediate weapons and are not a substitute for lethal force.

HPD Management did not believe there were any apparent inconsistencies.

There was no statistical evidence that the introduction of CEDs served as a substitute for the use of firearms by an officer. The results of the audit do not indicate a reduction in the number of officer involved shootings since the introduction of the CED. This is not surprising as the opportunities to use a CED instead of a firearm are very limited. For example, it would be highly unusual for an officer to rely on a CED if the suspect was armed with a firearm. With the passage of time, as well as the introduction of the collection of data for intermediate weapons, it may be possible to determine additional consequences, if any, of the CED policy.

On 53 of 1,284 occasions the officers used the CED as an alternative to deadly force even though they were not required to do so by HPD policies and State law. It should be noted that just because the officer would have been legally justified in using deadly force, it does not mean that the officer would definitely have chosen this option if not for being equipped with the CED. However, a review of the reports indicated situations in which other intermediate weapons were unlikely to have been used due to officer safety concerns: thus, if the CED had not been available, the use of deadly force would have been more likely.

Statistical Analysis of Call for Service/Incident Reports

With regard to the call for service/incident reports, the results from the CED statistical analysis suggests that certain combinations of officer and suspect characteristics result in an increased probability of CED utilization. For example, depending on how the race of the officer and suspect were paired, it was possible to see either significant increases or decreases in the rate of CED utilization. The Audit Team noted deviations from these general demographic patterns when the analysis was performed at the City Council District level.

Numerous statistical and research design challenges had to be overcome. As previously mentioned, only 52% of the electronic call for service/incident reports for the Scope period could be statistically analyzed. In addition, only 75% of the CED call for service/incident reports could be statistically analyzed without compromising the validity of the overall analysis.

Due to data limitations, only a limited amount of statistical controls were used. However, the importance of statistical controls cannot be overstated since they affect the strength of the General Observations noted below. For example, when the Audit Team controlled for City Council Districts the relationships between officers and suspects disappear or change.

- The likelihood of having a CED involved in a call for service/incident is approximately 0.08%. In other words, for every 10,000 calls for service/incidents 8 involved the use of a CED.
- Among officers, there are no gender differences in the overall likelihood of using a CED.
- African American officers were much less likely to use a CED than Anglo or Latino officers. Yet when controlling CED incidents by City Council Districts, African American officers may use a CED at the same rate as their Anglo counterpart.
- Latino and Anglo officers were equally likely to use a CED.
- African American suspects were much more likely to be involved in a CED incident than Anglo or Latino suspects. Latino suspects were somewhat more likely to be involved in a CED incident than Anglo suspects.
- Male suspects were much more likely to be involved in a CED incident than female suspects.
- African American officers were much less likely to deploy a CED than Anglo and Latino officers when a suspect was an African American. African American officers were equally likely to deploy a CED as Anglo and Latino officers when the suspect was an Anglo. When the suspect was a Latino, African American officers were equally likely to deploy a CED as Anglo officers and somewhat less likely to deploy a CED than Latino officers.
- CED incidents were much more common in Council Districts D and H than in all other Districts.

HPD Officer Focus Group Sessions

Six Focus Groups were formed with approximately 25 officers each to discuss CED related performance and HPD policies. The significant observations made by the officers were as follows:

- The majority of the officers claimed that the CED was an effective weapon and that they wanted HPD to continue using it.
- Several officers claimed that the CED is becoming well known because once the suspect sees the laser dot from the CED on his/her body, the suspect pleads with the officer not to deploy the CED.
- Most officers wanted to retain the CED as an intermediate weapon; however, HPD needs to reduce the paperwork requirements related to call for service/incident reporting, cartridge, and DPM replacements to be similar to that of other intermediate weapons.
- Officers stated the need for more training in writing reports related to CED calls for service/incidents.
- Numerous officers appeared to need clarification on the applicable GOs for CEDs.
- Several officers want the CED to be optional for carrying, like the other intermediate weapons. Many of the officers commented on the weight of their tool belt, how it affected their ability to enter and exit their patrol cars, as well as how the tool belt weighed them down during a foot pursuit.
- Officers wanted the HPD CED policies to be changed so that they could use their CED on a suspect who was fleeing, as many of the officer were unsure how to apply the applicable GOs.

The following comments came to the Audit Team's attention and are not directly attributable to CEDs:

- Certain officers appeared to have a lack of trust for HPD executive management.
- Officers believed that executive management did not adequately support them.
- Officers really appreciated the opportunity to be heard. According to certain officers, until this session no one had asked them for their opinion on work related matters.

For more details of the issues summarized in this assessment please review the attached detailed report.

RECOMMENDATIONS

The following recommendations are noted in the attached detail report.

POLICY

HPD's policy on the use of CEDs is well written and in line with the best practices of the law enforcement profession. The problems with its implementation may be the result of training and supervision issues as opposed to the wording of the policy. However, we recommend that HPD consider altering the policy so as to:

- Require the CED download information to be incorporated into the initial report so that it can easily be obtained and reviewed. This should be in an electronic format. The current system does not allow for this recommendation to be implemented; it is suggested that this option be explored when designing the new system.
- Place additional training emphasis on the officer's evaluation of the situation after each CED deployment and before subsequent deployments.
- Perform a detailed assessment of all incidents in which the CED is used in excess of five cycles to determine compliance with HPD GOs.
- Require medical screening at the jail of any subject against whom a CED is deployed.
- Require immediate medical screening and transportation to a medical facility if a CED is deployed and the subject appears to be experiencing excited delirium. While the research that has been done on the physical effects of being shocked by a CED has not definitely concluded that deploying a CED on a person suffering excited delirium has an adverse effect, a majority of the studies strongly suggest that this particular group is the one most likely to be adversely affected. Given the sudden onset of the effects of excited delirium, it is suggested that a subject should be transported to the hospital immediately for medical care.
- Clarify when it is appropriate to use a CED on a subject who is fleeing from an officer. The HPD GOs set out the policy clearly, but the focus groups indicated there may be a lack of understanding in the implementation on the part of some officers.
- Provide for tracking of CED deployment and the number of cycles used in the HPD Early Intervention System (EIS).
- Continue to prohibit use of the CED by multiple officers at the same time. The HPD GOs set out the policy clearly; however, it should be emphasized in roll call training.
- Review and revise GO # 400-26 to have an internal review process to ensure that roll call supervisors are adhering to GO # 400-26. The review should be documented to evidence that the work had been performed.
- Review the policy related to the replacement of CED cartridges as the officers have such a reluctance in carrying their extra cartridge primarily because of their fear of losing and/or damaging it as well as the related paperwork.

TRAINING

We recognize that the Academy has been called upon to train a large number of new cadets and to provide in-services training to the entire force. We recommend that the CED training continue to be reviewed. One of the tools that HPD has used that appeared to be particularly effective was the use of training bulletins and roll call training to emphasize certain aspects of the GOs. We recommend that the training be reviewed to:

- Determine whether additional scenarios should be included in the Field Problems Program or Simulations which specifically involve the use of CEDs in situations where the CED appears to be less effective.
- Continue to emphasize when a suspect's behavior is actively aggressive so as to warrant CED use. The call for service/incident reports reflect a lack of understanding by a small number of officers of the difference between passively resisting and aggressively resisting and the alternatives available to overcome the resistance.
- Continue to emphasize when it is appropriate to use a CED on a fleeing subject. Part of the training should be to demonstrate, or, at least, explain the risk to the subject of sustaining injury due to falling after being suddenly incapacitated. Also, training should emphasize the difficulty of actually hitting a fleeing subject with both darts.
- Demonstrate how a subject has difficulty in complying with orders given by an officer while being subjected to a CED deployment. For instance, have the volunteers who are subjected to a CED deployment, attempt to comply with common orders such as placing their hands behind their backs.
- Emphasize how to use the initial incapacitation period as an opportunity to gain control of the subject. For instance, demonstrate how to assume the proper position for handcuffing the subject.
- Continue to emphasize the risk to subjects of being placed in a position which impairs respiration after deployment of the CED. During the initial CED training, instructors should demonstrate handcuffing the subject in a manner which does not impair respiration and have cadets demonstrate proficiency. While it is understood that this is emphasized later in the cadet training, consideration should be given to demonstrating it during the initial training.
- Continue to emphasize how to accurately report the circumstances that warrant CED use including describing the actions of the suspect and any warnings given to the suspect.
- Emphasize actual situations faced by officers in the use of CEDs and incorporate different levels of use-of-force and how to transition from one type of use-of-force to another. For instance, add specific scenarios in which the excited delirium may be present and/or the CED is ineffective in controlling the suspect's behavior. It is recommended that the actual calls for service/incident reports and/or complaints be used as the basis for designing the scenarios.

- Continue to emphasize the signs of excited delirium and the proper steps to be taken to lessen the likelihood of serious injury if a CED is used. The training should continue to emphasize the potential danger to a suspect if the suspect is experiencing excited delirium and the need for immediate medical treatment.
- Continue to train on the various roles of officers during a call for service/incident where the CED is deployed. It is suggested that this be part of the scenario based training and that the various roles be given a designation so that officers are able to interchange the roles in the field. The current training films should be reviewed with an emphasis towards moving towards consistency in the message being delivered by HPD policy and training. It is recommended that the time currently being used to explain the workings and history of the CED would better be utilized to address some of the concerns noted in this report.

REPORTS

The reports are generally well written, but there are areas of deficiency. There were concerns expressed during the Focus Groups related to reporting requirements surrounding CED use. We recommend that the report form and process be revised so as to:

- Continue to emphasize that the report should reflect the behavior that warranted the deployment of the CED.
- Provide a drop down menu where appropriate. For example, the menu could include a place to indicate whether a verbal warning was given before the initial and subsequent CED use and whether the subject voluntarily complied.
- Require the CED download information (a history of spark testing and deployments since the last download) be incorporated into the initial call for service/incident report when the new system allows.
- Require the new system to have the capability of generating geo-coordinates from addresses. Not only could geo-coordinates more accurately pin-point the location of an important scene, the geo-coordinates would also fit into the current scheme HPD uses for locating an incident. A geo-coordinate pair uniquely maps to one key map address, one zip code and one City Council District.

DATA MANAGEMENT PROCESSES

Develop a process to enhance the forthcoming modernization in data management by means of a process audit. The current structure of data management seriously impairs efficient data processing and data acquisition. The audit would seek to identify, document, and merge efficient processes, remove impediments to efficient processing, and combine these methods with the new data processing capabilities now being acquired.

DIVERSE PATROL EXPERIMENT

It is clear that a complex set of factors have yet to be investigated. Among these variables are measures (to be developed) that capture the threat that officers face, the general context in which the CED incident occurs, as well as the relation between an officer's productivity, arrest history, and his/her use of CEDs. In order to obtain a more thorough and complete understanding of the dynamics of these new variables we recommend that it would be advisable to conduct a series of natural experiments. These natural experiments would be designed to evaluate, for example, the role of officer and suspect race and ethnicity in the probability that a CED incident occurs.

CED EQUIPMENT

The CED Equipment was adequately secured and generally accounted for by the Academy. The Audit Team identified and recommends that HPD consider the following areas for potential improvement:

- Consider installing bar code scanners in all police stations to facilitate the recording and issuance of the CEDs, cartridges, and DPMs. Furthermore, the scanners would be part of a centralized HPD CED tracking system that would contain the serial numbers of the CEDs and cartridges issued to each officer. To the extent possible and practical, the HPD CED tracking system should be incorporated into the new system being acquired.
- Review and assess the DPM failures and the amount of time officers are expending to get them replaced. Consider a more cost effective and efficient replacement process.
- Record the serial numbers of all CEDs and cartridges upon receipt from the manufacturer, and subsequent issuance to the officer.
- Implement a process to improve the controls over training cartridge inventory.⁵

⁵ Corrective Action: HPD has revised the training cartridge process. Process improvements include, the CED training cartridges are now a blue color and can be easily identified by HPD.

ACKNOWLEDGEMENTS

The HPD executive team was very cooperative during the audit and facilitated our numerous and often very challenging information requests throughout the engagement. They made their best efforts to provide complete and accurate data to the extent that it was feasible and practical. In certain instances, extra hours had to be worked by HPD management and staff to obtain the available data for the Audit Team. The Audit Team would like to thank HPD for the opportunity to attend the CED training and to have the experience of deploying a CED. Certain members of the Audit Team also appreciated the opportunity to participate in HPD's Ride Along Program to gain an understanding of a patrol officer's normal work day.

The Audit Team would like to especially thank those officers who were randomly selected for the Focus Groups, for being very forthright with their observations and comments. Many of the officers had to extend their work day or attend on their day-off on short notice to be able to participate in these very productive sessions.

A special acknowledgement should be given to Executive Assistant Police Chief Charles A. McClelland and Sergeant George Alderete for the amount of extraordinary effort and patience they had with the Audit Team combined with their time for facilitating our meetings and information requests. Furthermore, they should be commended for their responsiveness to accept and implement certain recommendations during fieldwork. Last but not least we would like to thank Chief Harold H. Hurtt for his cooperation and support throughout the entire audit.

Details of the assessment are contained in PART I through PART V of this report.

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PART I

DETAILED BACKGROUND AND AUDIT METHODOLOGY

DETAILED BACKGROUND AND AUDIT METHODOLOGY

DETAILED BACKGROUND

The CED is a relatively new electronic intermediate weapon where technology is often misunderstood. The purpose of this background section is to clarify certain common misunderstandings and to provide a basis for the detailed observations and comments in this report. This background section will describe:

- CED procurement
- CED program objectives and select policies
- The manufacturer's comments on:
 1. Who has purchased CEDs?
 2. Legal Liabilities and Risks
 3. CED Technology

CED Procurement

On November 3, 2004, the City Council awarded a \$4.68 million, five year contract (Number 56426) (the Contract) for the purchase of Taser X26 model CEDs, related consumables, and supplies to G.T. Distributors, Inc. (Contractor) and Taser International, Inc. (Manufacturer).

HPD issued CED policies subsequent to the purchase of the CEDs that classified CEDs as **intermediate** weapons.

Intermediate weapons are defined by HPD in GO# 600-17 as:

- Baton
- Oleoresin Capsicum (OC) spray
- Soft impact weapon (i.e. Beanbag Shotgun)
- CED (i.e. stun gun or Taser)

The HPD CED policy further states that CEDs are not a substitute for lethal force.

The following purchases for CEDs were made under the Contract:

Date	P.O. No.	No. of CEDs	Total Amount
11/15/2004	PG00010006809	3,700	\$3,408,388
3/31/2006	PG00010017886	395	437,380
6/5/2006	PG00010008078	132	125,832
Totals		4,227	\$3,971,600

According to the Contract, the CEDs shall be free from defects in workmanship and materials for a period of one year from the date of the Director's letter accepting the Taser Devices supplied to the City. Additionally, the Contractor and Manufacturer shall provide a "No Questions Asked" Extended Warranty on each Taser Device purchased by the City which shall begin the day following the expiration of the one year free warranty. The Contractor and Manufacturer shall provide each Taser Device purchased by the City, with the Warranty XDPM module programmed to reflect the five year warranty.

CED Program Objectives and Select Policies

In conjunction with the purchase of the CEDs, HPD developed a CED Program that included CED policies, procedures, and related training for the patrol officers. The CED Program has the following objectives:

- Assist officers in securing and controlling combative individuals.
- Reduce injuries to officers and suspects.
- Reduce financial impact of civil liability in use-of-force calls for service/incidents.
- In limited situations, provide an alternative to deadly force.

HPD used a series of circulars and directives to provide the officers with HPD Policies and Procedures to meet the CED program objectives.

During the Scope period HPD amended existing and/or issued various circulars and directives to include the policies and procedures related to the CEDs. To reduce the confusion to the officers and based on the results of a CED conference hosted by HPD, the CED circulars and directives were consolidated by HPD into GO # 400-26 that was issued on March 26, 2007. The GO clearly states when an officer is to use a CED as follows:

"CEDs are authorized for use against suspects who are actively resisting or exhibiting active aggression, or to prevent individuals from harming themselves or others."

GO # 400-26 also requires that officers keep CED cycling to a minimum, especially against persons in an excited delirium, and use only the force necessary to apply traditional restraint devices and affect an arrest. Furthermore the GO defines excited delirium as a state of extreme mental and physiological excitement, characterized by extreme agitation, hyperthermia, hostility, exceptional strength, or endurance without fatigue.

The officers are more accountable for the CED than any other intermediate weapon. The officers are required to complete documentation related to any use of the CED for example.

GO # 600-17 requires that:

"In every situation in which a CED is discharged (cartridge firing or drive stun), even if the suspect was not struck, officers will notify the Command Center and write a detailed incident report, and the on-scene supervisor will make a supplement."

Furthermore, officers are required to complete reports related to the replacement of CED cartridges and DPMs. Roll call sergeants are required to document their witnessing of each officer's CED spark test at the beginning of each shift.

Manufacturer's Comments

To better understand (1) who has been purchasing CEDs, (2) certain legal liabilities and (3) risk as well as the technology related to the CED, MFR requested certain CED background information from the manufacturer of the TASER X26.

1. Who has Purchased CEDs?

TASER® is a registered trademark. The information provided by the Manufacturer is summarized below. MFR did not perform an audit on the data provided by the Manufacturer. The Manufacturer refers to the CED throughout their literature as an electronic control device (ECD).

The Manufacturer claims to have sold 327,000 units to over 12,500 law enforcement and U.S. military agencies, as well as law enforcement agencies in 44 countries overseas. Over 4,300 agencies provide CEDs specifically to all their patrol officers. According to the Manufacturer, their CEDs have been deployed approximately 470,000 times on suspects and 610,000 times on volunteers.

Largest Texas TASER X26 CED sales were as follows:

1. Houston Police Department
2. Fort Worth Police Department
3. El Paso Police Department
4. Harris County Sheriff's Department
5. Dallas Police Department
6. Lubbock Police Department
7. Austin Police Department
8. Pasadena Police Department
9. Montgomery County Sheriff's Department
10. Fort Bend County Sheriff's Department
11. San Antonio Police Department
12. Galveston Police Department

2. Legal Liabilities¹ and Risk

According to the Vice President and General Counsel of the Manufacturer:

“Every law enforcement use-of-force creates some risk of civil and criminal liability and litigation. For force equipment manufacturers and distributors, there is civil product liability litigation risk. For law enforcement agencies there is civil risk and for individual officers there are civil and criminal excessive use-of-force liability and litigation risks under 42 U.S.C. § 1983 and state specific causes of action.

Law enforcement use-of-force risks and device manufacturer risks are separate and distinct liability and litigation risks. Manufacturers and distributors are not liable for excessive force claims and law enforcement agencies and individual officers are not liable for product liability claims.

The liability and litigation risk profile varies among the different use-of-force tools and techniques used by law enforcement. As a general rule, the greater the risk of injury to suspects caused by the use-of-force tool, the greater the risk of liability and litigation. Since the TASER® brand Electronic Control Device (ECD) has proven to significantly reduce injuries to suspects by up to 79%, and an estimated 9,000 lives have been saved by use of the TASER ECD, it has one of the lowest liability and litigation risk profiles of any use-of-force tool or technique. Courts have generally held that proper use of the TASER ECD is not excessive use-of-force and the reduction in use-of-force claims against law enforcement resulting from use of the TASER ECD is well documented and is one of the economic benefits of deploying TASER ECDs.

While TASER International, Inc. has been named in a number of product liability lawsuits arising from law enforcement use of the TASER ECD, TASER International has been successful in getting dismissals, summary judgments, or favorable jury verdicts in 51 lawsuits to date with more expected. The suspect injury or death lawsuits are frivolous and the plaintiffs have been unable to prove that the TASER ECD is defective or was an unjustified cause of any injury or death, both of which are essential elements to establish product liability. Autopsy reports and medical experts have determined that the cause of in-custody deaths have been due to complications from drug intoxication or pre-existing medical conditions and not from the TASER ECD.”

¹ According to HPD management, the City has been served with only one lawsuit related to a CED incident during the Scope period.

3. CED Technology

To better understand the underlying basics about electricity here are certain relevant facts:

- High voltage cannot cause injury if the current is very low.
- Low voltage CAN injure you if the current is high enough.
- CED devices operate at low average currents (0.0021 - 0.0036 Amperes).

A CED device produces 17-19 electrical pulses per second. Each electrical pulse mimics the electrical signal which is sent from the brain to the skeleton muscles causing the muscles to contract and release. One pulse causes a twitch; 17-19 pulses per second causes the appearance of a smooth contraction and the incapacitating effect.

While the CED device produces an initial 50,000 volts to create a spark that will transmit electricity through 2 inches of clothing, each short pulse of 400 volts actually enters the body. When compared to a static shock from a doorknob (35,000 to 100,000 volts) or a Van de Graff Generator (1,000,000 to 20,000,000 volts), a common display in science museums which makes your hair stand on end, each pulse from a CED with 400 volts and extremely low current is equally harmless.

When discussing how electricity will affect the human body, voltage becomes irrelevant without a discussion of the corresponding amount of electric current (measured in amperes). To say 400 volts is dangerous is inaccurate without also talking about the current associated with that charge. Voltage, even high voltage, alone does not harm or kill.

The average current delivered by a TASER X26 device is 0.0021 amperes or 2.1 mill amperes. Compare this with the average Christmas tree light bulb which has approximately 1 ampere of current, or the 16 amps from a typical 110-volt wall socket; it should be readily apparent that the extremely low current of a CED is safe.

To further put this into perspective, the “power plant” of a CED is two lithium batteries, similar to those placed in most digital cameras, which can produce approximately 100,000 CED electrical pulses.

The TASER X26 outputs 0.07 joules of energy per pulse compared to a cardiac defibrillator that operates at 360 joules per pulse.

The following is a schematic diagram of the technical components of a TASER X26:

The Shaped Pulse Generator is the technology revolution that made the X26 possible. Like the M26 before it, the X26 fires two probes up to a distance of 21 feet (6.4 meters), transmitting pulsed energy into the central nervous system of the target causing immediate incapacitation.

1. **PROBES**
Barbed probes hook into skin or clothing (No penetrator or not required)
2. **AFID TAGS (Anti-Felon Identification)**
Serialized Identifi cation tracking device
3. **HIGH VOLTAGE INSULATED TASER WIRE**
Up to 2' feet or 8.4 meters maximum range
4. **AIR CARTRIDGE**
Reversed design allows for quick reloading over addresses
5. **NITROGEN PROPULSION SYSTEM**
Clean inert nitrogen at 1000 PSI launches probes at over 1100 feet per second
6. **MECHANICAL SIGHTS**
In stainless steel
7. **SERIAL NUMBER PLATES**
In stainless steel
8. **ILLUMINATION SELECTOR**
Chooses between four modes: laser and light illumination, laser only, light only or a small
9. **SAFETY (Ambidextrous)**
AT&T ASLK X26 active holster and lights
10. **TRIGGER**
Activates custom, die-shaped pulse burst
11. **DPC (Digital Power Controller)**
Microprocessor monitors flow time between each shaped pulse to maintain a constant pulse rate across temperatures and battery variations
12. **DPM RELEASE BUTTON**
13. **ENHANCED GRIP ZONES**
In stainless steel
14. **SHOCK PLATE**
In stainless steel
15. **DPM (Digital Power Magazine)**
All weather lithium power pack with integrated digital memory. Stores 37 to 120" rated up to over 20 hits per at 200" with a 10-year shelf life
16. **SHAPED PULSE GENERATOR**
17. **LASER SIGHT**
High visibility deterrent optic targeting aid. Allows for easy, instant aiming
18. **LOW ILLUMINATION LIGHTS**
LED lights provide extra illumination of night while reducing the target's visibility
19. **BLAST DOORS**
20. **CENTRAL INFORMATION DISPLAY (CID)**
 - 0-99% battery life when armed
 - Counts down seconds remaining during firing cycle
 - System diagnostics
 - Warning signals
 - Current system time and temperature
 - Alarm occur mode
 - 100 user only
 - On only flashlight
 - Laser & flashlight
 - CID off/hold every 20 minutes

INTRODUCING
SHAPED PULSE™ TECHNOLOGY

BLUNT PULSE

90% ENERGY LOSS

NEW SHAPED™ PULSE

FULL ENERGY PENETRATION

Previous generation conducted energy weapons use a single high-energy, "blunt" pulse to penetrate through the skin and clothing barriers that serve as protective armor around the body. Over 90% of the energy is lost in the process of barrier penetration.

The patent pending Shaped Pulse technology in the X26 uses a highly refined energy pulse that concentrates a small portion of energy to first sever the barrier, while the majority of electrical charge is held in reserve, lowering frequency through the barrier once the leading edge has penetrated.

The dimensions of the X26 Taser (without cartridge) are as follows:

Length	6.00"
Height	3.20"
Width	1.30"
Weight	7.20 oz.

The length of the X26 Taser with cartridge is 7.25".

DETAILED BACKGROUND AND AUDIT METHODOLOGY

AUDIT METHODOLOGY

To accomplish the objectives and scope of this HPD CED Program Performance Audit, MFR formed a multidisciplinary team consisting of experts from the UH CPP, Rice University, SHSU CCJ, University of San Francisco, and PFM.

The Audit Team composition and audit methodology for each team was as follows:

MFR Team

The MFR Audit Team consisted of MFR professional internal auditors and information technology professionals. MFR focused on obtaining certain data that would be beneficial to all of the groups such as policies and procedures, background data, HPD GOs, and then facilitating data requests for the Audit Team.

MFR reviewed the internal controls related to the procurement and maintenance of HPD's CED inventory and related CED cartridges located at both the Academy and certain police stations. As part of the review, MFR conducted test counts and recorded the serial numbers of the actual CED and cartridges carried by a sample of 100 HPD officers. The test counts and related serial numbers were compared to the records maintained at the Academy.

MFR conducted six Focus Groups with approximately 25 officers in each group who had been issued a CED. The purpose of the Focus Groups was to obtain input directly from the officers related to their experience(s) with CED operations and related administrative matters.

UH CPP Team

The UH CPP Audit Team was comprised of experts from the University of Houston Center for Public Policy, Rice University, University of San Francisco, and PFM. UH CPP coordinated and led this group of experts in their quantitative analysis of the use of CEDs by HPD. The UH CPP and Rice experts statistically analyzed the HPD data in the categories of call for service/incident reports, injuries, complaints, and substitution of alternative intermediate weapons for more lethal weapons. Data sources for the Scope period came from the City Health and Safety Unit and HPD including the Crime Analysis Division, Technology Services, Training Division, Payroll Office, and the Internal Affairs Division.

PFM created a user friendly graphical database that interfaces with the statistical data analysis. The general public will be able to use the graphical database and perform their own analysis.

DETAILED BACKGROUND AND AUDIT METHODOLOGY

SHSU CCJ Team

The SHSU CCJ Team consisted of the criminology and certain mathematical research experts from SHSU and the College of Criminal Justice. They used qualitative analysis and observation to study several issues relating to the use of CEDs by HPD. SHSU CCJ reviewed all of the call for service/incident and on-site supervisor reports for each deployment of a CED for the period December 4, 2004 through June 30, 2007. The following issues were reviewed:

- When officers deployed a CED, were they responding to a call for service for which they were dispatched or did the officer self-initiate the call by making a traffic stop or otherwise encountering the subject?
- What was the nature of the original call for service?
- When an officer deployed the CED, how many cycles were used?
- In what percentage of the cases was the subject under the influence of alcohol and/or drugs when the officer deployed the CED?
- What appeared to be the effectiveness of the deployment of the CED?
- Were officers in compliance with HPD policy in the deployment of the CED and the reporting of the call for service/incident? If not, were factors present which made the deployment appropriate?
- Were there cases in which the CED was deployed where the officer would have been justified in using deadly force?
- During the training of cadets on the use of the CED, what was observed that might be affecting the manner in which officers will deploy the CED?

The SHSU CCJ Team also observed certain CED training classes at the Academy as well as reviewed certain HPD lesson plans that pertained to CEDs.

The results and observations from the three audit teams are consolidated into this report.