

DIVISION OF POLICE

Intra-Divisional

July 5, 2005

TO: James G. Jackson, Chief of Police
FROM: Sergeant Brian A. Bruce #5303, Defensive Tactics Unit
SUBJECT: Six Month Taser Study

Sir:

This report contains information on the Division's use of taser for the first six month period following full deployment of tasers on the street. The first full month of taser deployment was October 2004. Statistics between April 1, 2004-September 30, 2004 (six months prior to full deployment) to October 1, 2004-March 31, 2005 (six months of full Division deployment) will be used for this study. The statistical data used in this report was obtained from the Internal Affairs database, the Action-Response database, by reviewing Action-Response reports (U-10.128s) and Employee Benefits Unit. This report is accurate based upon the statistics collected from the above listed sources.

Each of the following tables in this report will have the actual numbers obtained and each statistic will be broken down into percentages where applicable. Each table contains the dates used to compare the data in each table. Based on the Division's reporting systems, some of the table dates vary to up to thirty days for the comparisons.

Taser Deployment Methods

The taser is deployed in one of two different deployments. The first deployment method is the **probe mode**. This constitutes the firing of a taser cartridge. Within the taser cartridge are two probes traveling at approximately 160 feet per second tethered by two insulated wires that conduct the electrical charge of the taser, delivering 50,000 volts of electricity to the subject up to twenty-five feet. The electricity jams the subject's sensory and motor nervous systems causing incapacitation. The second deployment method is the **drive stun mode**. This deployment method allows closer contact to the subject and the taser is used as a stun gun. In the drive stun mode, the taser is working off of pain compliance verses the incapacitation ability the probe mode provides.

Total Taser Usage

There were **172 Action-Response to Resistance Reports (U-10.128s)** filed during the first six months of full deployment. Of these deployments, **the taser probes were**

deployed 140 times at an aggressive/resistive subject and there were 132 uses of the taser in the “drive stun” mode. Some of the reported incidents contained the use of both the probe deployment and drive stuns as follow up to control aggressive/resistive subjects.

Effectiveness When Probes Hit

Of the total 140 tasers deployed in the probe mode, 76.4% of the uses were effective. Of the 140 probe deployments, 120 of the subjects were hit with the taser probes. Twenty incidents occurred where the taser was fired, but the probes missed the target. *(The majority of the misses were out of footchases. This problem was addressed through roll-call training in October 2004, when there became a pattern of misses correlated with footchases.)*¹

Of the 120 hits the Division had, 89.2% of those were effective. The ineffective hits (10.8%) representing twelve uses were due to thick clothing and the Division experienced one taser user error where there was hesitation in the trigger squeeze causing the user to move the taser off target, causing the miss. *(The problem of hesitation was addressed in October 2004 roll-call training mandating spark tests of the tasers daily.)*² The following table breaks down the uses of taser when deployed in the probe mode and the effectiveness of the taser probe mode applications:

Table 1 Taser Probe Use

Taser Use		Total	Percentage
Probe Application		140 Uses 120 Hits	
	Effective Uses	107	89.2%
	Ineffective Uses	13	10.8%
	Clothing	12	92.3%
	User Error	1	7.7%

Drive Stuns

The Division recorded 132 drive stun application of the taser of which, 100 or 75.8% of the applications were classified as effective. The 32 applications classified as ineffective were all due to the lack of counter pressure being applied by the officer. Simply stated, the subject was able to move their body away from the drive stun application causing the drive stun to be ineffective. The lack of counter pressure will be addressed again *(covered and demonstrated during CPD Taser User Certifications in 2004)* during the Defensive Tactics Unit Taser phase of training later this year. The

¹ Taser Issues Roll Call Training

² Advanced Taser X-26 Spark Test Roll Call Training

following table breaks down the uses of taser in the drive stun mode and the effectiveness of the taser drive stun applications:

Table 2 Drive Stuns

Taser Use			Total	Percentage
Drive Stun			132	
	Effective		100	75.8%
	Ineffective		32	24.2%
	Ineffective	Counter Pressure	32	100%

Number of Taser Cycles Used per Taser Application

The definition of a taser cycle is a five-second application of electrical energy. Officers on the Division are trained to deploy the taser and allow the taser to cycle through the first five-second cycle. The first five-second cycle is used to stop the subject’s aggressive/resistive behavior. Following the first cycle, officers were trained to evaluate the subject while giving loud, clear verbal commands to the subject for compliance. If the subject would not comply, officers were instructed to deliver a second five-second cycle. The second cycle is for behavior modification to gain compliance if the subject is still combative or non-compliant. In reviewing the information on the U-10.128s and investigative summaries, this information was not always clear. (I will address the current reporting of taser use and make recommendations in a follow up letter to this report.)

Based on the information recovered from the reporting of taser uses, the majority of taser uses (82.2%) were only one cycle. There were eleven applications involving two cycles (7.8%), nine applications involving three cycles (6.4%), four applications involving four cycles (2.9%), and one application involving five cycles (.7%). The following table breaks down the number of taser cycles used per taser application:

Table 3 Taser Cycles

Number of Cycles		Total	Percentage
1		115	82.2%
2		11	7.8%
3		9	6.4%
4		4	2.9%
5		1	.7%

Taser Use by Zone/Precinct

Comparing Patrol Zones, Zone Five has the highest number of taser deployments (34.8%). Comparing precincts, Eight Precinct had the most deployments of taser, with

twenty-five uses (14.5%). This could be a result of the police responses to the emotionally disturbed persons at the Net Care facilities (8 precinct and 12 precinct). The below table displays the total breakdown of uses by Zone and Precinct:

Table 4 Taser Use by Zone/Precinct

Zone 1	#	Zone 2	#	Zone 3	#	Zone 4	#	Zone 5	#
2 Pct.	6	9 Pct.	13	8 Pct.	25	1 Pct.	4	5 Pct.	17
7 Pct.	5	13 Pct.	8	10 Pct.	7	3 Pct.	1	6 Pct.	11
18 Pct.	5	14 Pct.	7	15 Pct.	4	4 Pct.	13	11 Pct.	15
				19 Pct.	4	16 Pct.	8	12 Pct.	17
						17 Pct.	2		
Total	16		28		40		28		60
%	9.3%		16.3%		23.3%		16.3%		34.8%

Use on Subjects Under the Influence of Drug/Alcohol or Emotionally Disturbed

Taser use on persons under the influence of drugs/alcohol or on emotionally disturbed persons (EDP) made up **55.6%** of all Division taser uses. Tasers were used to control twenty-eight persons under the influence of drugs. The breakdown of drug use was nineteen subjects on cocaine, four subjects on marijuana, and one subject under the influence of “acid”.

Tasers were used on thirty-three persons classified as being emotionally disturbed persons. Within this classification of persons, the tasers were used on twelve subjects threatening suicide. A summary of these incident are included below under the “Deadly Force Incidents and Suicides Prevented” heading. The below table shows the total breakdown of taser use on persons under the influence of drugs/alcohol or on emotionally disturbed persons:

Table 5 Use on Subjects Under Influence of Drugs/Alcohol or EDP

Influence	Type	# Incidents	Incident % out of 172 Reports
Drug Use		28	16.2%
	Cocaine	19	
	Marijuana	4	
	Acid	1	
	Other	4	
Alcohol		33	19.1%
EDP		35	20.3%
Total		96	55.6% of total Uses of Taser

Citizen Complaints

Internal Affairs Bureau data revealed **citizen complaints declined 23.8%** and **excessive use of force complaints declined 25.3%** since the implementation of the Division's taser program. The below table shows the total breakdown of total number of complaints filed and the total number of excessive force complaints filed:

Table 6 Citizen Complaints

Dates	Complaints Filed		Force Complaints	
7/04-12/04	429		111	
1/05-6/05	327	(23.8%)	83	(25.3%)

Injuries to Prisoners

I contacted IAB to compare the number of Injury to Prisoners to find out if there has been a change in the number of arrested subjects injured since the full deployment of the tasers. **Injury to arrested subjects has decreased 24.1%**. This is a significant decrease. By lowering the number of injuries to subjects officers arrest, the Division is lowering medical expenses, decreasing to probability of lawsuits, and building a better relationship with our community. The below table displays the difference between the two different time periods:

Table 7 Injuries to Prisoners

Dates	Injuries	
April 2004-September 2004	145	
October 2004-April 2005	110	(24.1%)

Officer Injury from Physical Confrontations

The Employee Benefits Unit records indicate the number of officers injured in physical confrontations since the full deployment of the tasers **has declined 23.4%**. This statistic is of extreme importance to the Division. By lowering the officer injury rate, we are decreasing the number of lost man hours, decreasing laid-in cruisers, decreasing worker's compensation claims, but most of all the Division is keeping its officers safer. The below table displays the difference between the two different time periods:

Table 8 Officer Injury from Physical Confrontations

Dates	Injuries	
April 15, 2004-October 15, 2004	124	
October 16, 2004-April 15, 2005	95	(23.4%)

Level 2 Control (Use of Mace)

Based on data obtained from IAB, the **use of chemical mace has declined 36.8%**. Although chemical mace is just below the use of taser on the Division's Action-Response Use of Force Continuum, it has had a few problems in getting the desired effect during confrontations. These problems include not being effective immediately, not affecting highly motivated individuals, some subjects are not affected by the use of chemical spray, the environment it is used in, cross contamination of others in the immediate area and officers at scene, persons under the influence of drugs/alcohol, or emotionally disturbed persons (EDPs). The taser has taken the above mentioned problems with the chemical mace and eliminated the concerns of the officers. If an officer deploys the taser and both probes have contact, it will be effective. The taser also seems to be far less intrusive on the subjects it is used on when compared to the chemical mace. Based on the lengthy recovery time of the chemical mace, the taser's five second cycle is extremely short. Once the taser cycle finishes, the subject is back to their normal state, not suffering through the intrusive recovery period chemical mace causes. Given an option between the two, it appears officers are feeling more confident with the taser than the chemical mace. The below table displays the difference between the two different time periods:

Table 7 Level 2 Control

Dates	Level 2	
April 2004-September 2004	340	
October 2004-April 2005	215	(36.8%)

Level 4 Control (Strikes, Punches, Kicks)

Based on data obtained from IAB, the use of Level 4 Control (Strikes, Punches, Kicks) has declined 32.2%. The below table displays the difference between the two different time periods:

Table 8 Level 4 Control

Dates	Level 4	
April 2004-September 2004	118	
October 2004-April 2005	80	(32.2%)

Level 5 Control (Use of Impact Weapon)

Based on data obtained from IAB, the use of Level 5 Control (Use of Impact Weapon) has declined 20.7%. The below table displays the difference between the two different time periods:

Table 9 Level 5 Control

Dates	Level 5	
April 2004-September 2004	29	
October 2004-April 2005	23	(20.7%)

Deadly Force Incidents and Suicides Prevented

Based upon the study, there were **fourteen incidents where deadly force would have been justified where the taser was used**. Officers in these incidents (most involved weapons presented at officers, others, or the officer being under an attack or fighting for the officer’s service weapon) used time, distance, and barriers to set up the safe application of the taser use. In the majority of the incidents, officers had enough time to have a back-up officer at scene with deadly force back-up to ensure the safety of fellow officers and citizens involved in the incidents.

Within the fourteen incidents, there were **twelve incidents in which suicides were prevented** by the use of the taser. Below are the summaries of these twelve incidents:

1. Officers responded to a burglary in progress. Officers chased the subject into a vacant apartment. The subject pulled out a knife (one of three taken in the original burglary call) and threatened to kill himself, holding the knife to his throat. The subject stated he was not going to jail and was going to kill himself. With other officers at scene having deadly force back-up, the subject was tased and was incapacitated. The subject dropped the knife, allowing officers to take him into custody. The subject had two additional knives on his person when apprehended.
2. A distraught male subject was “pink slipped” by Net Care and officers were attempting to take him into custody when the subject pulled out a large butcher knife and stated the officers were not going to take him anywhere. After a long period of verbal communication with the subject about putting the knife down, and with other officers at scene having deadly force back-up, the subject was tased and incapacitated. The subject dropped the knife and was taken into custody.
3. An officer was dispatched on a domestic dispute stand-by run. While speaking with a case worker and the subject’s mother in the subject’s residence, the subject (diagnosed as bi-polar) ran to an upstairs bedroom and came back down the steps holding a shotgun. The subject’s mother ran between the subject and the officer. The officer realizing he could not deploy deadly force without harming the subject’s mother, deployed the taser. The subject was tased and the shotgun was removed from his possession and he was taken into custody.

4. Officers responded to an attempt suicide run. Once at scene, the officers found a despondent female who had already cut her left wrist with a razorblade. The subject still possessed the razor in her right hand. The officers tried to talk her into putting the razor down, but she refused. She began to cut her left wrist again when the officers tased her and incapacitated her. The razor was recovered and she was transported to the hospital.
5. Officers were dispatched to Mt. Carmel West on a disturbance with a patient. Once at scene, officers encountered a female subject that barricaded herself in a room with a syringe filled with haldol pressed against her neck. Hospital personnel stated she had repeatedly attempted to stab them with the syringe. After multiple de-escalation communication with the female, officers deployed the taser. Following the second cycle of energy, the female dropped the syringe and she was placed into custody.
6. SWAT responded to a female subject with a knife, gun, and hostage threatening to kill herself and the hostage. During the negotiations, SWAT moved into the house where the subject was barricaded. The female subject exited a bedroom without the gun in hand and was tased and incapacitated. The knife and gun were recovered and the hostage was released.
7. A bi-polar subject who was suicidal was stopped by an officer following a phone call from family members stating their concern and description of the subject. During the officer's approach to the subject's vehicle, the officer observed the subject with his hands under a coat on the subject's lap. The officer, fearing a weapon may be hidden under the coat, drew his firearm and gave the subject multiple verbal commands to show his hands. The subject then reached back and grabbed the officer's firearm yelling for the officer to shoot him. The officer regained control of his firearm, holstered the firearm, and drew his taser. The subject became violent and was tased and incapacitated. During handcuffing, the subject had to be drive stunned to get him to comply.
8. Officers responded to a suicidal subject with a firearm wanting to kill himself. With other officers at scene having deadly force back-up, the subject was tased and incapacitated and dropped the gun. The subject was placed into custody and the firearm was recovered. The firearm turned out to be a pellet gun.
9. Officers were dispatched to a suicide attempt. Once at scene an officer knocked on the door of the residence. The subject answered the door with a firearm behind his back and stated he was going to shoot himself in the head. Using cover and after multiple attempts to have the subject disarm, an officer tased the subject, incapacitated him and recovered the firearm.
10. Officers responded to an attempt suicide. The subject ingested a hand full of dilantin and began throwing items in a room at officers and refused to comply

with the officer's verbal orders. Officers tased the subject and transported him to the hospital for treatment.

11. A suicidal male subject was threatening to jump off of a railroad bridge to commit suicide. Officers approached him. He threw a box cutter at the officers and refused to comply. The subject displayed a letter opener and threatened to kill the officers. Officers deployed a taser, but missed the subject. The subject was shot with two beanbag rounds and still would not comply. A second taser deployment missed the subject. Officers rushed the subject and used drive stuns to gain compliance of the subject.
12. Officers responded to a suicide attempt. Upon arrival, a male subject was holding a butcher knife threatening to "put it through his throat". Officers sparked the taser at the subject with no effect. The officers then deployed the taser. The subject dropped the knife, was incapacitated and taken into custody.

Additional Information

One area that is not addressed in this report is excessive use of force lawsuits filed against the Division. This area was not researched due to the two year filing time period plaintiffs have to file their lawsuits.

While completing this study, there were problematic issues on how taser use is defined and reported. I will complete a follow up letter to this report to address some of the concerns and make recommendations for remedies of these problems, including a U-10.128 Taser Use Report supplement to assist with taser reporting issues. In addition to this, (and as directed by Deputy Chiefs Distlezweig, Rockwell, and Gammill) there is a need for training in the area of Action-Response Investigations. I am beginning to formulate the training for our supervisors in this area.

Conclusion

In conclusion, and based on the above statistical data collected and compared, it is clear the Division's deployment of the X-26 Tasers has made a substantial difference in the past six months. Decreases in officer injury, injuries to prisoners, citizen complaints, and higher levels of subject control demonstrate the effectiveness of the Division's taser program. The most important statistics are the human lives saved through the use of the taser. Twelve suicides and a total of fourteen incidents deadly force could have (and most likely would have) been used to end confrontations is exceptional. The protection of life is bottom line in law enforcement and the Division's taser program and the Division's investment into this new technology has proven its worth.

In closing, I respectfully request permission for an hour presentation and discussion with Executive Staff on the taser program. I have received multiple requests to present the

taser study to City Council when my findings were completed. I request the opportunity to discuss and receive guidance and direction from Executive Staff on the issues for the presentation to City Council.

Respectfully Submitted,

Sergeant Brian A. Bruce #5303
Defensive Tactics Unit Sergeant

Attachments: Taser Issues Roll Call Training Document
Advanced Taser X-26 Spark Test Roll Call Training Document

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