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**DID WE ACCOMPLISH OUR  
MISSION TO:**

**“REDUCE OFFICER AND  
SUSPECT INJURIES BY  
STOPPING THREATS FROM  
A SAFE DISTANCE?”**



# Success Percent by Level of Use

Total number of reports 1,645

**Percent Successful: 94.59%**

	<u>Yes</u>	<u>No</u>	
Darts Fired at Subject:	957	63	<b>93.8%</b>
Laser Only:	238	3	<b>98.8%</b>
Spark Demo	35	1	<b>97.2%</b>
Stun Gun Application	246	21	<b>92.1%</b>



# Distance of Firings

<u>Distance</u>	<u>Number</u>	<u>% of Known</u>
Unknown	377	
1-3 Feet:	129	13.0%
3-7 Feet:	358	36.0%
7-11 Feet:	311	31.3%
11-15 Feet:	166	16.7%
15-21 Feet:	29	2.9%



# Success Percent by Distance of Firing

<u>Distance</u>	<u>Success</u>	<u>Failed</u>	<u>Rate</u>
1-3 Feet:	124	5	96.12%
3-7 Feet:	340	18	94.97%
7-11 Feet:	290	21	93.25%
11-15 Feet:	153	13	92.17%
15-21 Feet:	27	2	93.10%



# Length of discharge

<b>1 seconds</b>	<b>9</b>	<b>1.1%</b>
<b>2 seconds</b>	<b>20</b>	<b>2.5%</b>
<b>3 seconds</b>	<b>31</b>	<b>3.9%</b>
<b>4 seconds</b>	<b>18</b>	<b>2.3%</b>
<b>5 seconds</b>	<b>443</b>	<b>55.4%</b>
<b>More than 1 cycle</b>	<b>279</b>	<b>34.9%</b>
<b>Total Reported</b>	<b>800</b>	<b>100%</b>



# TASER and OC Uses

Cases Where both used: 182

## OC Effective

TASER Effective	55	30%
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TASER Ineffective	14	7.7%
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## OC Ineffective

TASER Effective	94	51.6%
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TASER Ineffective	19	10.4%
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Royal Canadian Mounted Police  
ADVANCED TASER Tests



# Number of shots fired

<u># of Shots</u>	<u># of Incidents</u>	<u>%</u>
1	902	87.0%
2 (same unit)	59	5.7%
2 (different unit)	58	5.6%
3	14	1.4%
4	3	0.3%
5	1	0.1%
<b>TOTAL</b>	<b>1,037</b>	



# Number of probes that hit the suspect

<u># of Probes</u>	<u># of Incidents</u>	<u>%</u>
1 Probe Hit	57	8.4%
2 Probe Hit	615	90.7%
3 Probe Hit	5	0.7%
4 Probe Hit	1	0.1%
Total Reported	678	



# Type of Incident Involving the Use of M26

<b>Officer Assault</b>	<b>73</b>	<b>4.44%</b>
<b>Warrant Service</b>	<b>93</b>	<b>5.65%</b>
<b>Barricaded</b>	<b>99</b>	<b>6.02%</b>
<b>Civil Disturbance</b>	<b>191</b>	<b>11.61%</b>
<b>Suicidal</b>	<b>267</b>	<b>16.23%</b>
<b>Resisting Arrest</b>	<b>483</b>	<b>29.36%</b>
<b>Violent</b>	<b>531</b>	<b>32.28%</b>

There is more than 100% as each event may involve one or more types of  
incident



# Suspect Force Levels

<b>Deadly Assault</b>	<b>34</b>	<b>2.6%</b>
<b>Defensive Resist</b>	<b>346</b>	<b>26.6%</b>
<b>Active Aggression</b>	<b>453</b>	<b>34.8%</b>
<b>Verbally Non-Comp</b>	<b>467</b>	<b>35.9%</b>
<b>Total Incidents</b>	<b>1300</b>	



# Types of Weapons Used by Suspects

<b>Blunt Weapon</b>	<b>40</b>	<b>2.4%</b>
<b>Firearm</b>	<b>53</b>	<b>3.2%</b>
<b>Edged Weapon</b>	<b>203</b>	<b>12.3%</b>

**% of Total Uses = 1,645**



# Suspect's Influence

<b>PCP</b>	<b>16</b>	<b>1.0%</b>
<b>Misc. Drugs</b>	<b>15</b>	<b>1.0%</b>
<b>Cocaine</b>	<b>75</b>	<b>4.6%</b>
<b>Meth</b>	<b>63</b>	<b>3.8%</b>
<b>EDP</b>	<b>379</b>	<b>23.0%</b>
<b>Alcohol</b>	<b>617</b>	<b>37.5%</b>



# Suspect's Influence







# Suspect's Influence





# Failures in Stun Gun Mode

<b>Low Nerve/Muscle</b>	<b>10</b>	<b>50%</b>
<b>Weapon Problem</b>	<b>4</b>	<b>20%</b>
<b>Miss</b>	<b>2</b>	<b>10%</b>
<b>Low Battery</b>	<b>2</b>	<b>10%</b>
<b>Single Dart</b>	<b>1</b>	<b>5%</b>
<b>Clothing</b>	<b>1</b>	<b>5%</b>
<b>Total Reported Causes</b>	<b>20</b>	



# Failures when Darts Deploy

<b>Clothing</b>	<b>23</b>	<b>26.1%</b>
<b>Single Dart</b>	<b>14</b>	<b>15.9%</b>
<b>Miss</b>	<b>13</b>	<b>14.8%</b>
<b>Unknown</b>	<b>10</b>	<b>11.3%</b>
<b>Low Nerve / Muscle</b>	<b>9</b>	<b>10.2%</b>
<b>Operator Error</b>	<b>6</b>	<b>6.8%</b>
<b>Low Battery</b>	<b>3</b>	<b>3.4%</b>
<b>Animal Use</b>	<b>2</b>	<b>2.3%</b>
<b>Cartridge Failure</b>	<b>2</b>	<b>2.3%</b>
<b>Dropped / Broken</b>	<b>2</b>	<b>2.3%</b>
<b>Propped Up</b>	<b>2</b>	<b>2.3%</b>
<b>Door Closed</b>	<b>1</b>	<b>1.1%</b>
<b>Weapon Problem</b>	<b>1</b>	<b>1.1%</b>
<b>Total</b>	<b>88</b>	



# Clothing Penetration





# Total of All Failure Causes

<b>Clothing</b>	<b>24</b>	<b>21.4%</b>
<b>Low Nerve / Muscle</b>	<b>19</b>	<b>17.0%</b>
<b>Miss</b>	<b>15</b>	<b>13.4%</b>
<b>Single Dart</b>	<b>15</b>	<b>13.4%</b>
<b>Unknown</b>	<b>10</b>	<b>8.9%</b>
<b>Operator Error</b>	<b>6</b>	<b>5.6%</b>
<b>Low Battery</b>	<b>5</b>	<b>4.5%</b>
<b>Weapon Problem</b>	<b>5</b>	<b>4.5%</b>
<b>Decided not to use</b>	<b>3</b>	<b>2.7%</b>
<b>Dropped / Broken</b>	<b>3</b>	<b>2.7%</b>
<b>Animal Use</b>	<b>2</b>	<b>1.8%</b>
<b>Cartridge Failure</b>	<b>2</b>	<b>1.8%</b>
<b>Propped Up</b>	<b>2</b>	<b>1.8%</b>
<b>Door Closed</b>	<b>1</b>	<b>0.9%</b>
<b>TOTAL</b>	<b>112</b>	



# Location of Use

Indoor	405	27.2%
Jail / Hospital	188	12.6%
or		
<b>Indoor + Jails</b>	<b>593</b>	<b>39.9%</b>
Outdoor	894	60.1%
<b>TOTAL:</b>	<b>1,487</b>	



# Injuries to Suspects

**None**            **1,443**    **87.7%**

**Minor**            **176**    **10.7%**

(Puncture wounds from probes & misc. cuts)

**Moderate**        **19**     **1.2%**

(Abrasion, skinned knee, carpet burn, testicle shot, penis shot, cut to mouth, cuts from falling onto glass)

**Severe**            **7**      **0.42%**

(Dog bites, self-infliction, officer battle)



STANDOFF



5:05 42°







# Normal Probe Mark





# “Sensitive” Probe Hit





# Face Probe Hit



10.6.2001 02:43



# Injuries to Officers

**None**                    **1,565**    **95.1%**

**Minor**                    **74**            **4.5%**

(Officers involved with fighting suspects or arresting them)

**Moderate**            **5**              **0.3%**

(Knife thrown at officer cutting arm, knee injury officer ran into obstacle, struggle prior to TASER use, officer fell during chase & fractured arm, groin kick prior to TASER)

**Severe**                    **1**              **0.06%**

(Officer attacked by 6-8 juveniles, M26 used in stun gun mode - suspect poor batteries)



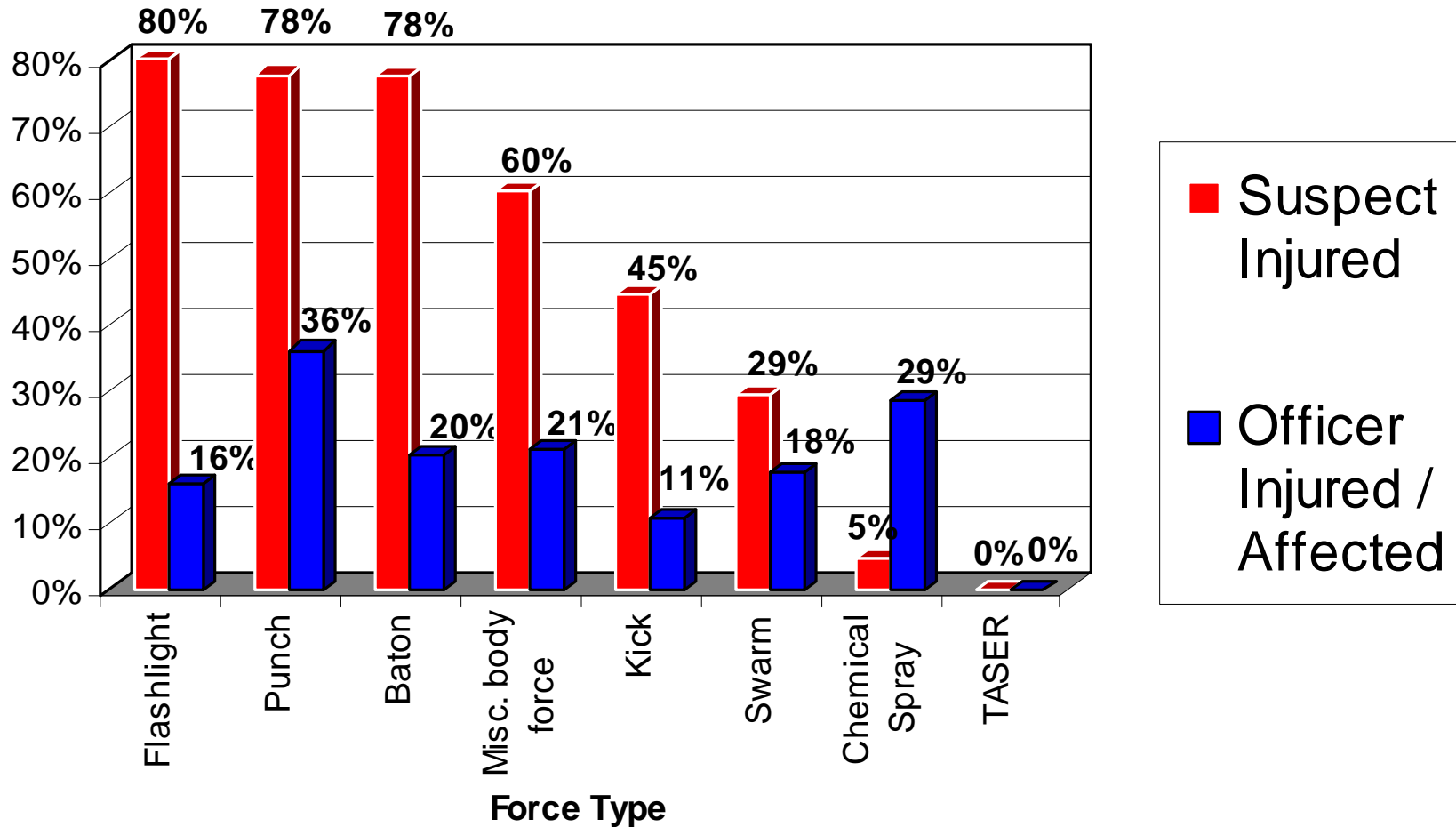
# Reno Police Use Quote

- 8/21/00 M26 shot fired at suicidal man with shard of broken glass. Subject slashed wrists, ignored verbal commands and rushed Sgt. Pittman. Subject dropped by M26 safely.
- “The attending ER physician removed the probes and commented on how little damage was done in comparison to the damage he usually saw after a subject was involved in a physical confrontation with officers. Probes and self-inflicted slash to left wrist and no injuries to officers.”



# Comparison of Injuries

## *TASER Technology Reduces Injuries*



**Source: Study of Use of Force at Los Angeles Police Department, Greg Meyer. Statistics are for 7-Watt TASER technology deployed at LAPD.**

**Original Study Available at <http://home.earthlink.net/~gregmeyer/injury.html> on the internet.**



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**YES**





# Company Background

Future News:

Enhanced clothing penetration  
improvement





# Penetrator Probe Stats

<u>Probe</u>	<u>Mass</u>	<u>Distance</u>	<u>Velocity</u>	<u>Momentum</u>	<u>Energy</u>
Reg.	1.58g	0'	164 fps	259	21.2
		12'	100 fps	158 (-38%)	7.9 (-62.5%)
Penetrator	3.29g	0'	104 fps	342	17.8
		12'	83 fps	273 (-20.2%)	11.3 (36.4%)

## Physical Penetration of Layers of Standard Industrial Towels

Regular: 4 Layers

Penetrator: 12 Layers



**Are there any  
Questions?**