



**Force Review Unit**  
**2016 Taser Report**

September 2017

## **Introduction**

Paragraph 83 of the Consent Decree between the City of Seattle and the United States Department of Justice requires the Seattle Police Department to track and report data and analyses relating to Conductive Devices (CEDs, or Tasers<sup>1</sup>). Consistent with that requirement, this report is intended to provide (1) an overview of the Seattle Police Department's Taser program; (2) an overview of the reporting and data management of Taser deployments; (3) statistics concerning the effectiveness of Taser deployments in bringing subjects under control; and (4) a comparison of SPD data concerning Taser effectiveness with reported data from other agencies.

This report is not intended to be an assessment as to use of force and policy; analyses as to decisions to use force, the application of force, and the investigation and review of force are separately discussed in more robust manner in the Department's Annual Use of Force Report (published January 31, 2017, and available online at <https://www.seattle.gov/Documents/Departments/Police/Publications/Use%20of%20Force%20Annual%20Report%20-%20Final.pdf>). It is, rather, intended as a review of the tool's efficacy in deployment for purposes of informing the Department's Taser program, training, and policy. In that regard, this report is also intended as feedback to the Force Review Board as it considers trends that may emerge with respect to policy, training, or equipment.

## **Overview of the Seattle Police Department's Taser Program**

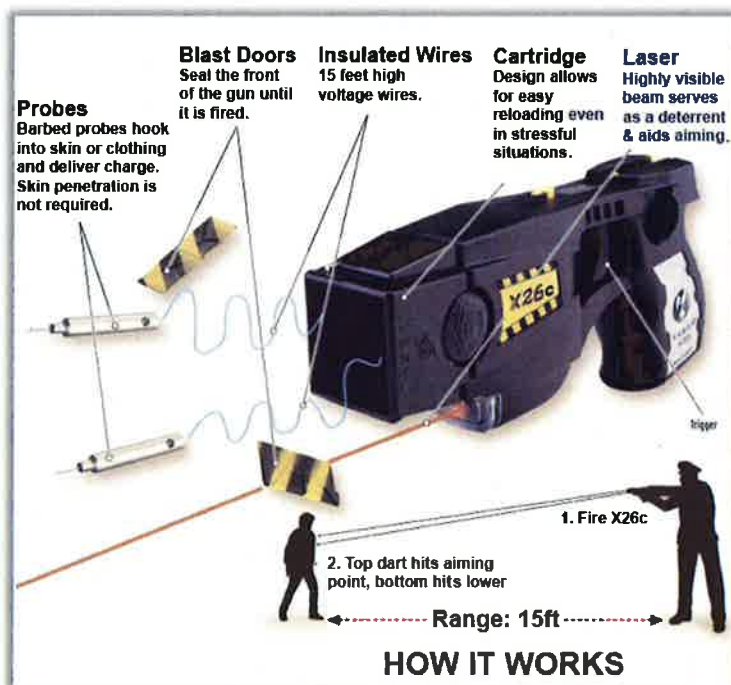
A Taser is a less-lethal device that is available as a force option when use of force is needed to bring an incident under control where deadly force may not be warranted.<sup>2</sup> The use of a Taser is governed by SPD Manual Section 8.300, Use of Force Tools. As with any less

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<sup>1</sup> Tasers are the brand name of CEDs manufactured by the Axon Corporation (formerly Taser International). As the Seattle Police Department uses only Taser model CEDs, the term Taser is used throughout this report.

<sup>2</sup> Department's Use of Force Training Manual describes the Taser as  
an intermediate force option for use in situations that create a risk of harm to an officer or another person that an officer believes will not be controlled by the use of control tactics. Typically, the Taser is used when controlling levels of force have not been effective or it appears that they will be ineffective, but the suspect has not attacked anyone yet.  
[https://static1.squarespace.com/static/5425b9f0e4b0d66352331e0e/t/542ae4f1e4b00ac585ed4e87/1412097265945/DKT\\_No. 144 Memorandum Re ISDM dated 053014.pdf](https://static1.squarespace.com/static/5425b9f0e4b0d66352331e0e/t/542ae4f1e4b00ac585ed4e87/1412097265945/DKT_No.144_Memorandum_Re_ISDM_dated_053014.pdf).

lethal tool, it may be used “to interrupt a subject’s threatening behavior so that officers may take physical control of the subject with less risk of injury to the subject or officer than posed by greater force applications. Less-lethal devices alone cannot be expected to render a suspect harmless.”



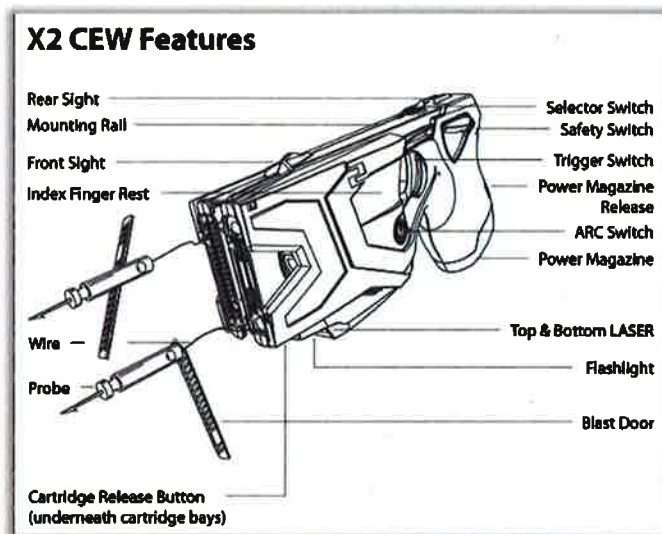
Tasers operate in two primary modes: “probe” (or “dart”) mode and “contact” (or “drive stun”) mode. In dart mode, Tasers use compressed nitrogen to fire two barbed probes (darts). Electricity travels along thin wires attached to the probes and can bring about uncontrolled muscle contractions which override an individual’s voluntary motor function (neuromuscular incapacitation, or NMI). In drive stun mode, the device is placed in direct contact with the subject’s body; in this manner of deployment, the Taser

is intended to cause significant pain, but it does not override motor function.

By policy, Seattle Police Officers are required to carry at least one less-lethal tool (Taser, baton, or Oleoresin Capsicum (OC) spray). Officers who choose to carry Tasers are required to attend a two-day training course before being issued their device.



Taser Officers are deployed in the field with either a X2 or X26 Taser Model. The X2, as the newer model, represents the majority of Tasers in the field; X2 deployments comprise approximately 78% of deployments discussed in this report. The below illustration depicts the mechanisms and functionality of the X2 device.



At SPD's request, Taser added certain modifications to the X2 model, including an automatic shutdown mechanism that stops the discharge cycle after 5 seconds (consistent with Department policy).

### Reporting of Taser Deployment

The Department tracks all Taser deployments (whether in dart mode or stun mode) as a Type II use of force, regardless of whether the Taser application was effective or not in bringing the subject under control. Each Taser application is reported as a separate force count; an officer who deploys their Taser twice in the course of an incident, e.g., is required to report that as two separate applications. Arc warnings (a spark triggered as a visual indicator of the Taser's capacity to enhance a verbal warning) and the pointing of the device's laser alone, are not reportable events.

Taser deployments are reported through Blue Team, a web-based data entry interface that feeds information regarding officer activity, including activity related to use of force, into IAPro, the Department's performance management database. As shown in the below screenshots from Blue Team, data collected regarding Taser deployments include information relating to the mode of deployment (dart or drive stun), the effect of deployment (and, if the device was not effective, the reason), the location of penetration on the subject (or notation of missed deployment), the serial number of the device and cartridge, and any injuries.

### Add Force Used

**Force Type \***

Electronic Control (ECD / Taser) ▼

You cannot add strike points when Non-Contact Force is selected

**Was the Force Effective? \***

☐ Yes  
☐ No  
☐ Limited

**Non-Contact Force**

☐ Was the device displayed only or was this a non-physical force type?

### Less Lethal Details

**Serial Number**

Serial #

**Cartridge Number**

Cartridge #

☐ Was the device displayed only?  
☐ Was this a projectile/probe deployment?  
☐ Was this a direct contact/drive stun contact?

**FRONT**

**BACK**

**Missed**

**Number of air cartridges used**

# used

**Number of cycles through probes**

# of cycles

**Total number of probes deployed**

# deployed

**Number of probe hits**

# of hits

**Number of cycles**

# of cycles

**Duration of cycles:**

▼

**Reason not effective:**

▼

**Reason for limited effect:**

▼

☐ Did the application cause injury?  
☐ Was the cartridge attached?  
  
☐ Did the application cause injury?  
☐ Did the probe(s) penetrate the subject's skin?  
☐ Was the subject wearing heavy clothing?  
☐ Was an additional cartridge deployed?  
  
☐ Was a follow up drive stun conducted?  
☐ Was this an accidental (unauthorized) discharge?

### Additional Details

☐ Was this an arc display?  
☐ Community Member was painted with laser / red dot

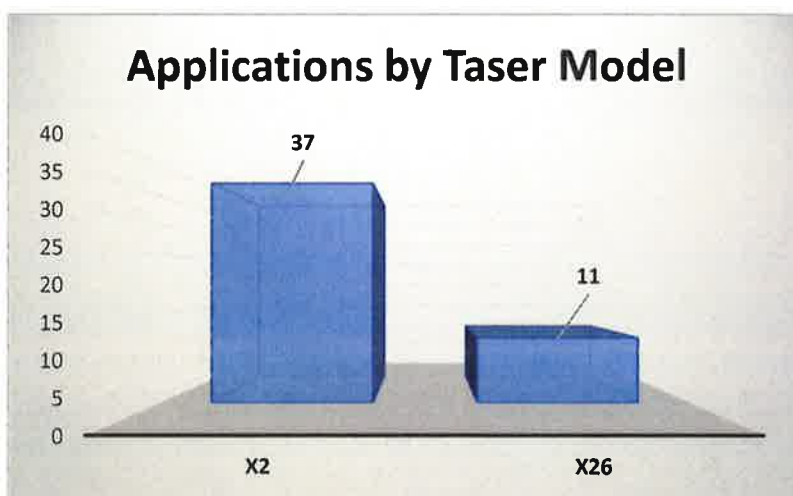
**Add**

In addition, the device retains data concerning arc tests, activations, deployments, and length of deployments. These records are downloaded and maintained, with each Blue Team report, as part of the Use of Force file in IAPro (see below screenshot for example of the database). The data presented in this report is sourced directly from IAPro.

Received date	Type	Incident Number	External C
2017-01-10	Level 2 - Use of Force	2017UOF-0083	2017-0113
2017-01-09	Level 2 - Use of Force	2017UOF-0130	2017-0099
2017-01-09	Level 2 - Use of Force	2017UOF-0129	2017-0099
2017-01-03	Level 2 - Use of Force	2017UOF-0048	2017-0020
2017-01-01	Level 2 - Use of Force	2017UOF-0050	2017-0006
2017-01-01	Level 2 - Use of Force	2017UOF-0051	2017-0006
2017-01-01	Level 2 - Use of Force	2017UOF-0052	2017-0006
2017-01-01	Level 2 - Use of Force	2017UOF-0054	2017-0006
2017-01-01	Level 2 - Use of Force	2017UOF-0053	2017-0006
2017-01-01	Level 2 - Use of Force	2017UOF-0055	2017-0006
2016-12-31	Level 2 - Use of Force	2016UOF-1574	2016-4685
2016-12-31	Level 2 - Use of Force	2016UOF-1570	2016-4685
2016-12-27	Level 2 - Use of Force	2016UOF-1564	2016-4631
2016-12-14	Level 2 - Use of Force	2016UOF-1547	2016-4477
2016-12-14	Level 2 - Use of Force	2016UOF-1548	2016-4477
2016-12-13	Level 2 - Use of Force	2016UOF-1546	2016-4477
2016-12-06	Level 2 - Use of Force	2016UOF-1534	2016-4386
2016-12-06	Level 2 - Use of Force	2016UOF-1533	2016-4386
2016-12-01	Level 2 - Use of Force	2016UOF-1477	2016-4316
2016-11-30	Level 2 - Use of Force	2016UOF-1478	2016-4316
2016-11-27	Level 2 - Use of Force	2016UOF-1481	2016-4269
2016-11-26	Level 2 - Use of Force	2016UOF-1426	2016-4263
2016-11-26	Level 2 - Use of Force	2016UOF-1425	2016-4263
2016-11-26	Level 2 - Use of Force	2016UOF-1424	2016-4263
2016-11-16	Level 2 - Use of Force	2016UOF-1472	2016-4134

## Taser Deployments

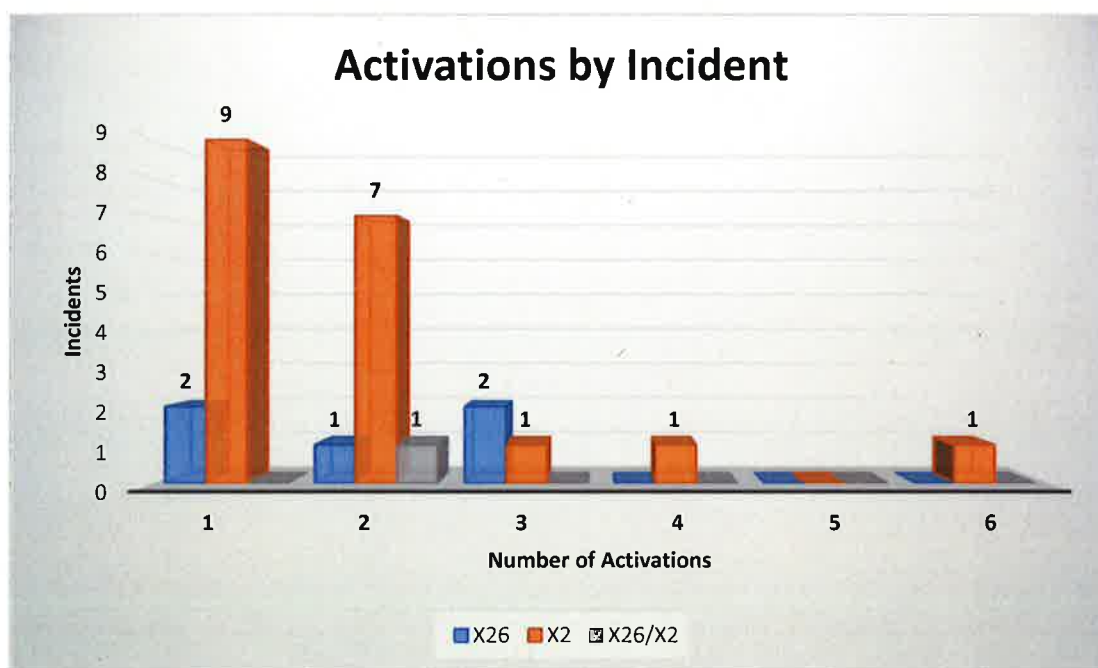
In 2016, there were 25 incidents in which one or more officers deployed or activated a Taser beyond simply an arc display. Of these 25 incidents, 28 officers reported, collectively, a total of 48 separate Taser activations. The majority (22) of these 28 officers were equipped with the newer X2



model; the remaining six were equipped with the older X26 model. Of the 48 separate

Taser activations reported across these 25 incidents, 37 involved the X2; 11 involved the X26.

The below figure shows a breakdown of Taser activations on a per incident basis and by Taser model. The substantial majority (80%) of incidents involved only one or two Taser activations; one incident involved two officers, each of whom activated their Taser three times.



In all but one of the 25 incidents in which a Taser was deployed, at least one backing officer was present.

### Effectiveness of Taser Deployments - Aggregate

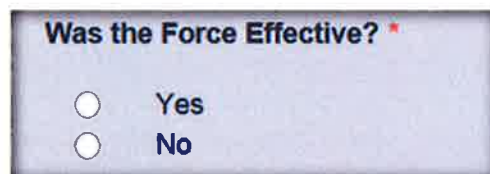
There is no universally accepted measure for determining whether a Taser application is "effective." Some researchers offer two perspectives on assessing Taser effectiveness:

- (1) Whether the officers are able to successfully incapacitate a combative suspect without serious injury to the officer or suspect; and
- (2) Officers' satisfaction with its performance.

See White, M.D., Ready, J. (2007) *The TASER as a Less Lethal Force Alternative: Findings on Use and Effectiveness in a Large Metropolitan Police Agency*. *Police Quarterly*, v. 10, 2: 170-191. These authors concluded that, by this measure, Tasers were effective in 85% of instances used. The Los Angeles Police Department, as another example, appears to measure effectiveness by whether or not the desired outcome – causing someone to submit to arrests – was achieved. See <http://www.latimes.com/local/crime/la-me-lapd->

[tasers-20160401-story.html](#) (*One of the LAPD's preferred weapons to help officers avoid shootings often doesn't work*, LA Times, April 1, 2016). This article reports an effectiveness rate, over five years of data, of between 53 and 65% of deployments. Other agencies appear to measure Taser effectiveness as total NMI; still others appear to determine effectiveness as a measure of any decrease in officer and subject injury.

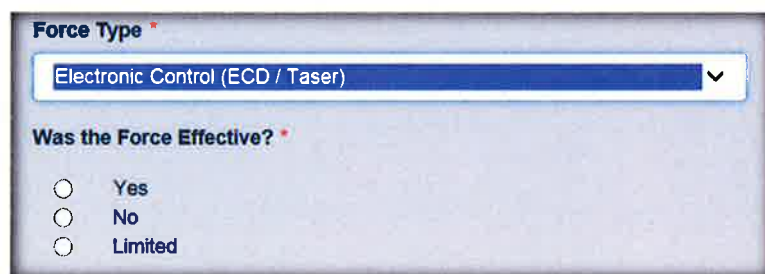
Blue Team requires officers to report on the effectiveness of all force used, from verbal commands to discharging a firearm, as "effective" or "not effective" under the guideline that "if the force used allowed you to take the subject into custody," then it was effective. If it did not, then it was not effective. Officers make this determination for each type of force they apply in a given incident.



Was the Force Effective? \*

☐ Yes

☐ No



Force Type \*

Electronic Control (ECD / Taser) ▼

Was the Force Effective? \*

☐ Yes

☐ No

☐ Limited

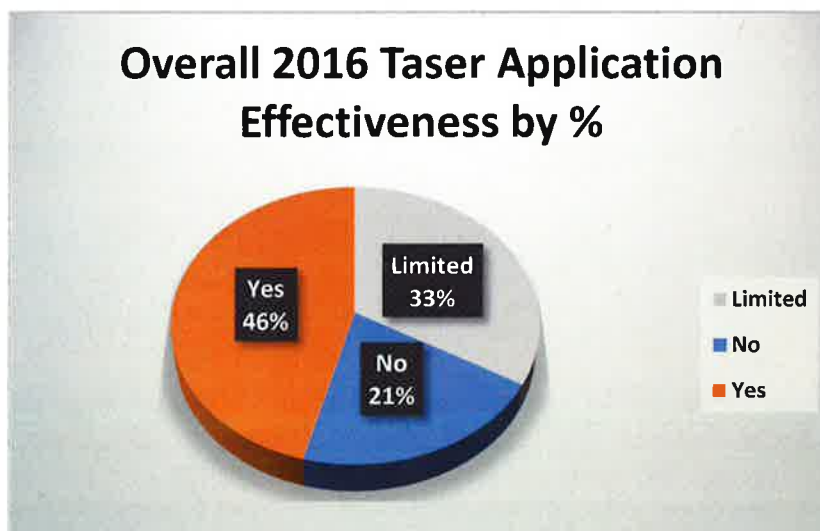
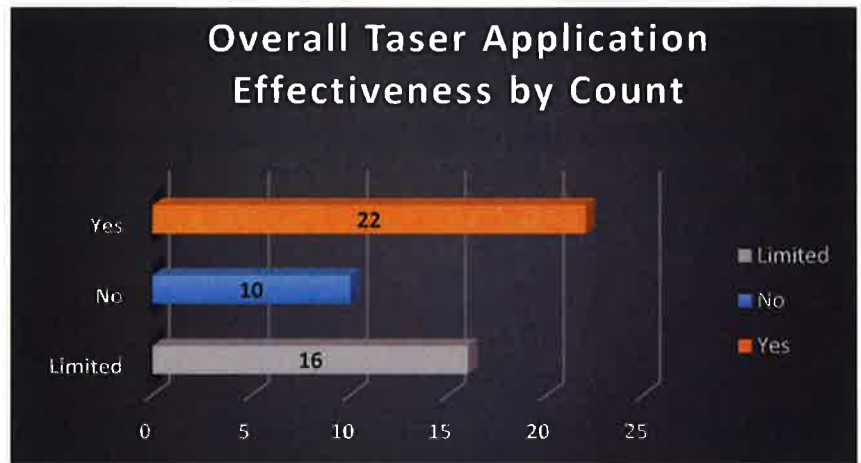
The Taser reporting module is unique in that it allows officers to report force as "Effective," "Limited," or "Not Effective." Effectiveness is determined by the involved officer at the time of Taser activation and is based on

their training and prior experience. If an officer believes the Taser was effective in taking the subject into custody, that officer should report the Taser application as "effective." If the application had some useful effect in taking the person into custody, it should be reported as limited. If the Taser failed, misfired, missed, did not result in NMI, or otherwise was not useful in taking the person into custody, the deployment should be reported as having "No Effect."

One limit to the Blue Team interface is that officers evaluate the effectiveness of Taser application with regard to his or her deployments in the aggregate, rather than assessing each deployment individually. In other words, if an officer deploys three Taser applications, the third of which is effective but the first two are not, the Blue Team report would reflect that officers Taser use, overall, as effective. For purposes of this report, for incidents that involved multiple applications, Blue Team narratives were examined to determine the effectiveness of each application separately. In the hypothetical example above, accordingly, three applications would be reported, one of which was effective, and two of which were not.



The following figures represents the breakdown of Taser application effectiveness by count and percentage. Of the 48 Taser applications across 25 unique incidents, 22 (46%) were reported as effective; 16 (33%) were reported as of limited effect; and 10 (21%) were reported as having no effect.



By way of comparison to reported statistics from other agencies, in addition to those reported earlier in this report, LA PD, in its annual use of force report for 2016, reported that of the 1,330 reported applications, 58% were effective, up from 53% the prior year.<sup>3</sup> In a 2008 report analyzing Taser deployments over a five-year

period, the Orange County Sheriff reported an effectiveness rate of 62% across 1,469 applications; the Orlando, FL Police Department reported an effectiveness rate of 55% across 644 applications.<sup>4</sup> Thus, while the overall number of Taser deployments by Seattle police officers is markedly lower than in other jurisdictions, the overall effectiveness rate is on par with peer agencies.

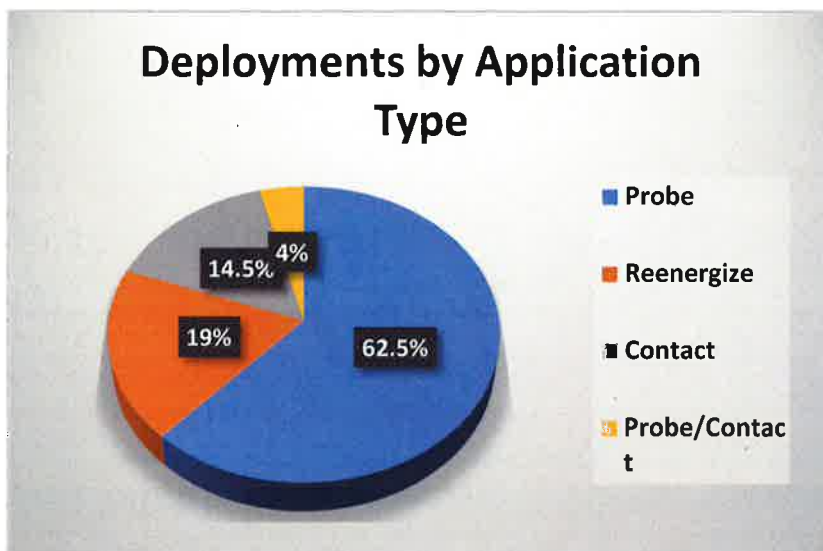
### Effectiveness of Taser Deployments – Application Type

In addition to dart-mode (or probe deployment) and drive-stun, officers classified certain applications as either “probe/contact” or “re-energize.” A probe/contact application indicates a situation in which the Taser is fired in dart mode, at least one probe makes good contact, but NMI is not achieved. In this circumstance, the Taser is deployed in drive stun elsewhere on the body to complete the circuit in an effort to achieve NMI. The “re-energize” classification indicates a situation in which an officer is required to apply a

<sup>3</sup> <http://assets.lapdonline.org/assets/pdf/2016-use-of-force-year-end-review-small.pdf>

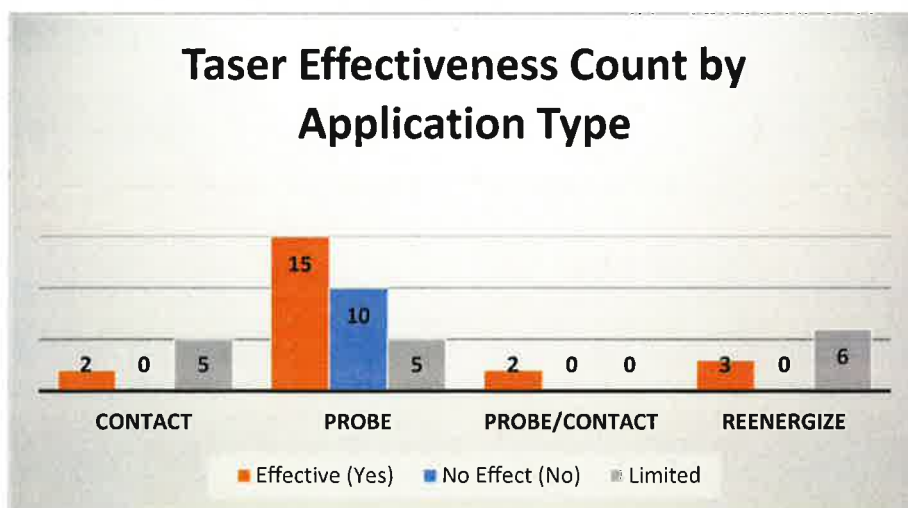
<sup>4</sup> <https://www.ncjrs.gov/pdffiles1/nij/grants/224081.pdf>

second or third trigger pull in order to recycle the electric current; as each application is separately described in the officer's Blue Team statement, a "re-energize" application would necessarily appear in conjunction with another mode of deployment. Again, multiple applications may be reported in a single incident; returning to the hypothetical example of the three applications, only the last of which was effective, one might envision that situation to entail a probe deployment, a re-energizing application, followed by a probe/contact.

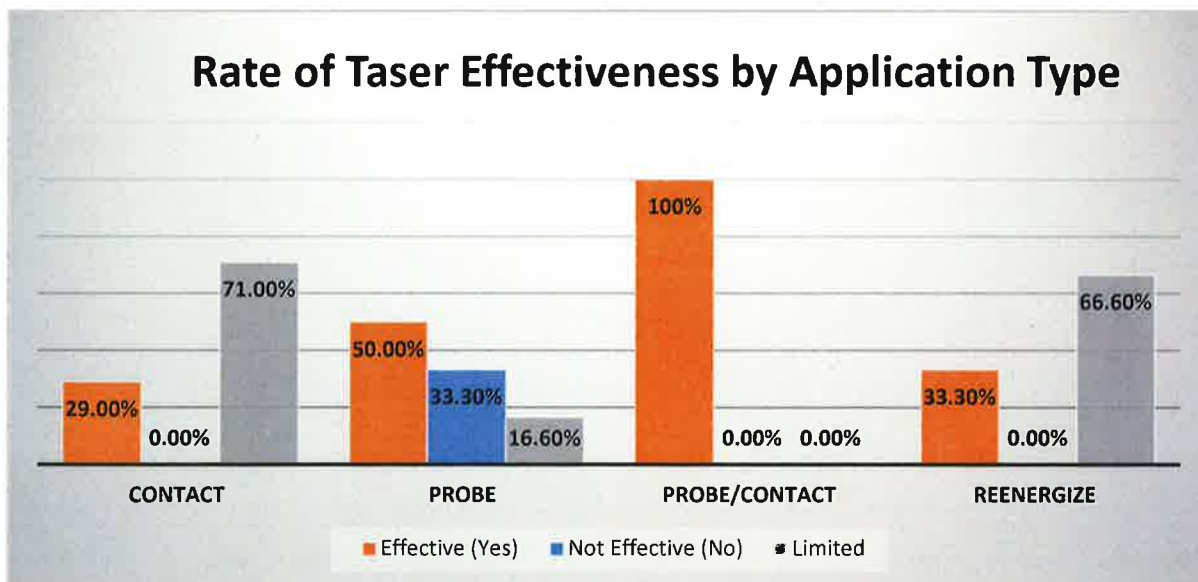


As shown in the figure above, the majority of Taser deployments (62.5%) occurred in probe (dart) mode; another 14.5% occurred in drive-stun (contact) mode. Nineteen percent involved a re-energized application.

The chart below illustrates the effectiveness of Taser applications per mode by application count; the chart on the following page illustrates the effectiveness rate of Taser applications by type. For probe deployments, which make up the majority of Taser applications, 50% are reported as effective. One hundred percent of deployments in probe/contact mode were reported to be effective, but account for only 4% of all



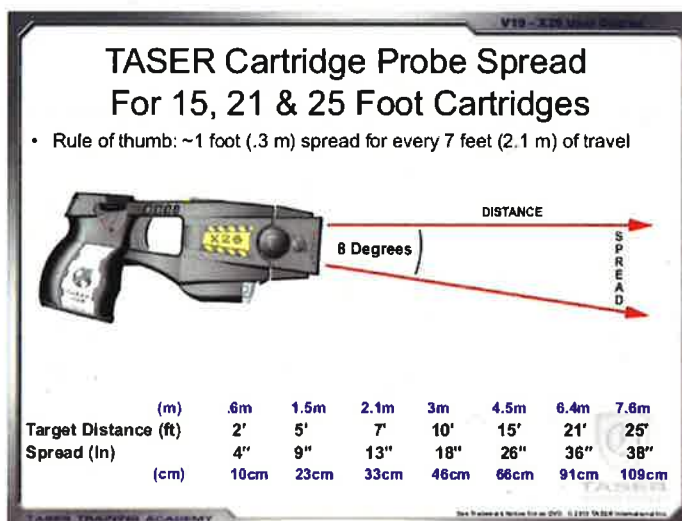
applications. Contact and Re-energize applications both reflect high rates of limited effectiveness (71% and 66% respectively), but no applications across either category were reported as having no effect.



## Effectiveness of Taser Deployments – Distance from Subject

To work in probe, or dart, mode, there must be adequate spread between the probes to generate a sufficient current to cause NMI. Due to the trajectories and lag of the probe wires, the greater the distance the officer is from the subject, the greater the spread will be; as shown in the graphic to the right, Taser estimates an approximate one foot spread per seven feet of travel.

Optimum distance for a Taser deployment is 7-12 feet, with a target of center mass. In probe mode, spread must be generally be a minimum of four inches to be effective.



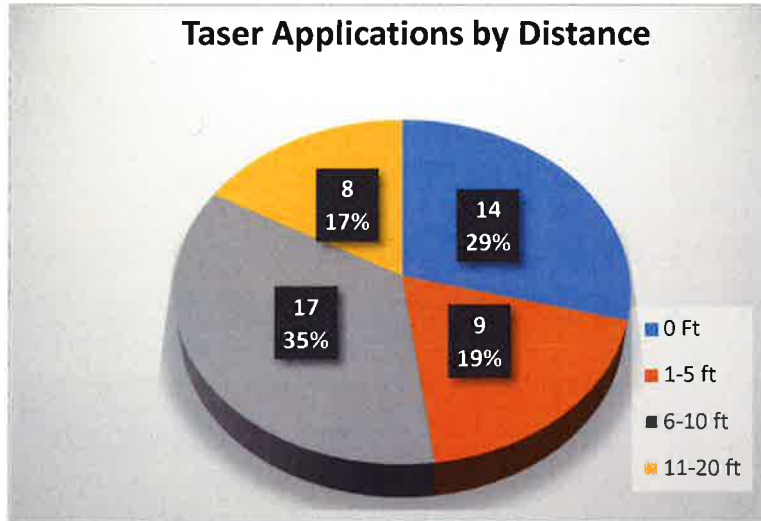
### Distance to community member

1 – 5 feet

The Taser module in Blue Team requires officers to report their estimated distance

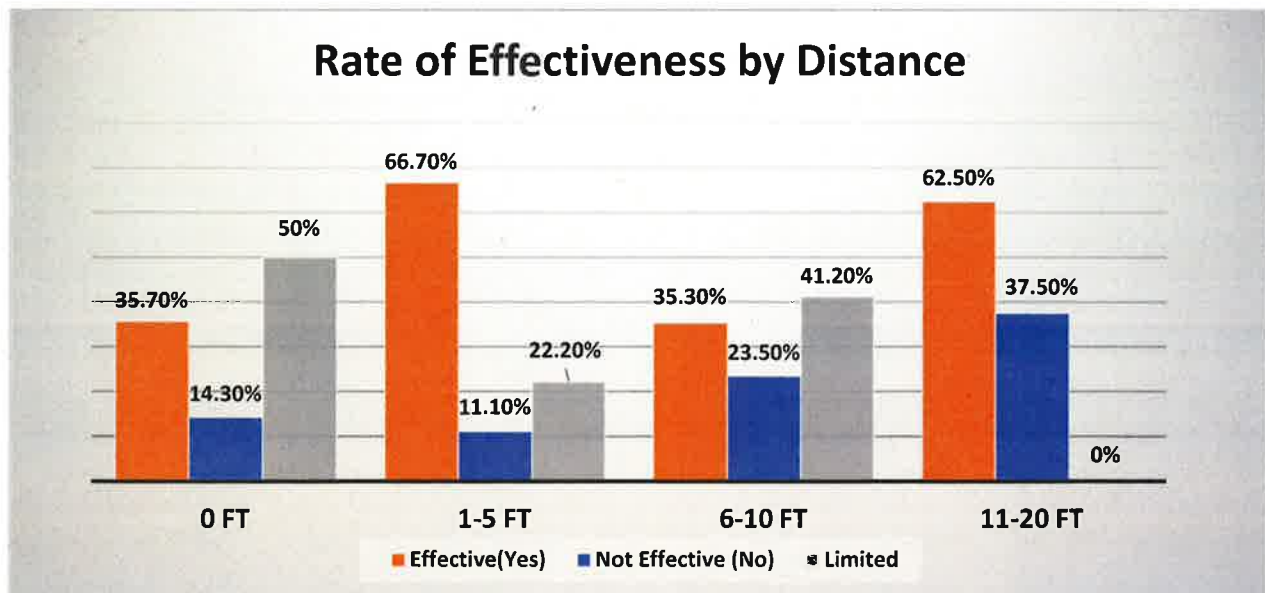
from the subject by way of four drop down range selections of 0 feet (as would be the case in contact mode), 1-5 feet, 6-10 feet, and 11-20 feet.

## Effectiveness of Taser Deployments – Application Distance



Roughly 35% of deployments were reported to be at a distance of 6-10 feet from the subject. 29% of deployments were reported to be at a distance of zero feet (next to or in contact with the subject); 19% were reported to be at a distance of 1-5 feet, and 17% were reported to be at a distance of 11-20 feet.

The figure below shows a breakdown of reported effectiveness as a function of rate by distance. Applications from the 1-5 foot and 11-20 foot range were most frequently reported as effective, although they represent the smallest proportions of overall applications (n=9 and 8, respectively).



Several factors may impact the effectiveness of a Taser, including a missed probe, low spread between probes, heavy or baggy clothing, low or high body mass. The physiological state of a subject may also impact Taser effectiveness.<sup>5</sup> Where a Taser

<sup>5</sup> Attached as Appendix A are product use guidelines as set forth by the manufacturer that contain more detailed caveats regarding product risks and reliability. See [https://prismic-io.s3.amazonaws.com/axon%2F100852d3-e500-4903-811b-70237da3946d\\_law-enforcement-warnings+8-5x11.pdf](https://prismic-io.s3.amazonaws.com/axon%2F100852d3-e500-4903-811b-70237da3946d_law-enforcement-warnings+8-5x11.pdf)



application is not effective, officers are required to identify in their Blue Team statements the reason so, based on their training and perspective at the time of the deployment. Blue Team provides the following options for recording Taser ineffectiveness:

- Spread (i.e., insufficient to cause NMI);
- Miss (i.e., probes did not strike the subject);
- Clothing (e.g., thick, puffy, and baggy clothing may cause a gap between the subject and the probe, resulting in a disconnect and ultimately failure of the application);
- Cartridge Failed: Didn't activate







Of the 48 separate Taser applications, 26 were reported to be of limited or no effect. In one instance, the reason given was a cartridge failure; in the majority of instances (12), officers identified insufficient spread as the causal factor.

## Conclusion

Seattle Police Officers reported a total of 48 separate Taser applications over 25 incidents in 2016. In 46% of these incidents, the application was determined to be effective in assisting officers to take a subject into custody; in an additional 33%, the Taser application was determined to be of limited effect. The Taser was of no effect in 21% of instances. These findings are in line with rates reported in other agencies.

It should be cautioned that the low frequency with which Seattle officers deploy Tasers precludes drawing statistically meaningful inferences from these data. The Force Review Unit will continue to monitor Taser use over time and any trends that emerge will inform Department policy and training.

# APPENDIX A

<div><div></div><div><p><b>TASER</b> PROTECT LIFE</p></div></div>	<div><div><p><b>TASER CONDUCTED ELECTRICAL WEAPON (CEW) STUDY AID</b></p><p><b>SELECTED USE GUIDELINES</b></p><p>This is a rapid study guide only and is a supplement to, but not a substitute for, TASER warnings and training. Be trained and read full warnings (available online at <a href="http://www.axon.com/legal">www.axon.com/legal</a>).</p><p>CEWs have risks and CEW use and physical incapacitation, alone or in combination with physical exertion, stress, unforeseen circumstances, or individual susceptibilities, may ↑ risk or cause serious injury or death.</p></div><div><div></div><div><p><b>WARNING</b></p><p><b>Conducted Electrical Weapon</b></p><ul style="list-style-type: none"><li>• Can temporarily incapacitate target.</li><li>• Can cause death or serious injury.</li><li>• Obey warnings, instructions and all laws.</li><li>• Comply with current training materials and requirements.</li><li>• See <a href="http://www.TASER.com">www.TASER.com</a>.</li></ul></div></div></div>
<div><div><p><b>(THESE GUIDELINES MAY BE MORE RESTRICTIVE THAN CONSTITUTIONAL STANDARDS AND DO NOT CREATE OR ELEVATE A STANDARD OF CARE)</b></p><p><b>TASER CEW USE GUIDELINES</b></p><p><b>This Study Aid is intended to reduce CEW safety risks and excessive force claims.</b></p><p><b>Distribute this Study Aid to all CEW users and review regularly and at annual recertification training.</b></p></div></div>	
<div><ul style="list-style-type: none"><li>• If no exigency or immediate safety risk exists, slow down and consider alternative force options/solutions including negotiation, commands, or physical skills.</li><li>• Physical resistance alone does not equal immediate danger.</li><li>• Emotionally disturbed person (EDP) or mentally ill alone does not indicate immediate threat.</li><li>• Choose a force option reasonably likely to cure the immediate safety risk.</li><li>• Non-deadly danger to self does not justify higher force risk.</li><li>• CEWs do not replace deadly-force options.</li></ul></div>	<div><div></div><div><p><b>Subjects with Increased Risks (requiring ↑ justification):</b></p><ul style="list-style-type: none"><li>• Higher risk populations (children, pregnant, elderly, thin)</li><li>• Known medical conditions (pregnancy, heart disease, pacemaker, seizure history)</li></ul><p><b>Secondary Risks (requiring ↑ justification):</b></p><ul style="list-style-type: none"><li>• Uncontrolled falls, subjects in elevated positions or running on hard surfaces<ul style="list-style-type: none"><li>- Consider if tackling or intentional grounding is objectively reasonable</li></ul></li><li>• Operating machinery or transportation (car, motorcycle, bicycle, skateboard)</li><li>• Presence of explosive, flammable substance, or vapor</li></ul></div></div>
<div><p><b>Incident Basics:</b></p><ul style="list-style-type: none"><li>• Complete training first; recertify annually</li><li>• Review latest TASER CEW warnings</li><li>• Follow all laws, regulations, policies</li><li>• If CEW is not achieving intended goal, transition to different force option</li><li>• Monitor subject post-CEW; if unresponsive, initiate EMS/CPR protocols</li></ul></div>	<div><div></div><div><p><b>Minimize Number and Duration of CEW Exposures:</b></p><ul style="list-style-type: none"><li>• Each CEW trigger pull or 5 seconds of discharge must be objectively reasonable</li><li>• Control and restrain subject immediately, if safe and practical</li><li>• Use 5-second "window of opportunity" to restrain and "cuff under power"</li><li>• Avoid simultaneous CEW exposures with multiple CEWs or multiple circuits</li><li>• Avoid repeated, extended, or continuous exposures beyond 15 seconds absent reasonably perceived immediate threat and ↑ justification</li></ul></div></div>
<div><p><b>Probe Targeting:</b></p><ul style="list-style-type: none"><li>• Back shots ↑ safety and effectiveness</li><li>• Avoid intentionally targeting sensitive areas (eyes, head, throat, chest/heart, genitals, known pre-existing injury areas)</li><li>• Use preferred target areas (blue areas on target figures)</li><li>• Avoid chest (↓ cardiac risks, particularly in thin subjects)</li><li>• Close-range deployment - split belt line, maximize probe spread</li></ul></div>	<div><p><b>Probe Spread:</b> Wider probe spread ↑ effectiveness. 12" (30.5 cm) probe spread is necessary for ↑ effectiveness, stopping forward motion.</p><ul style="list-style-type: none"><li>- Optimal probe spread for incapacitation requires minimum 7-foot (2.13 m) distance between front of CEW cartridge and subject.</li><li>- If too close to achieve good probe spread, attempt to ↑ distance. Targeting leg may allow tactical advantage.</li></ul></div>
<div><p><b>CEW Use:</b></p><ul style="list-style-type: none"><li>• Use objectively reasonable force under totality of circumstances</li><li>• Use force only on those actively/aggressively resisting or higher</li><li>• Give a verbal warning before using force, if practical</li><li>• Give subject reasonable opportunity to comply before force is used or repeated</li><li>• Cease force once subject surrenders or is captured, controlled, and restrained</li></ul></div>	<div><p><b>If person is NOT immediate threat or flight risk, Avoid CEW Use:</b></p><ul style="list-style-type: none"><li>• Without first attempting verbal de-escalation, commands, or physical skills</li><li>• On person known or perceived to be emotionally disturbed or mentally ill</li><li>• On elevated risk populations</li><li>• For pain compliance if pain foreseeably ineffective due to ↑ tolerance from drugs, alcohol, or psychosis</li></ul></div>
<div><p><b>Limit CEW Touch (Contact)-Stun Use:</b></p><ul style="list-style-type: none"><li>• Avoid using CEW touch (contact)-stun except:<ul style="list-style-type: none"><li>- 3 or 4-point contact to complete circuit or ↑ probe spread</li><li>- "break-contact" or distraction tactic when assaulted or tied up with subject</li><li>- brief application to attempt pain-compliance, must give reasonable time and opportunity to comply</li></ul></li><li>• Avoid repeated touch-stuns if compliance is not achieved, particularly with EDPs</li></ul></div>	<div><p><b>Documentation (always document force/CEW justification):</b></p><ul style="list-style-type: none"><li>• Document immediate safety risks, danger, resistance, force used from officer POV</li><li>• Body worn cameras and CEWs provide best objective documentation of events</li><li>• Fully document (identify, collect, maintain evidence)<ul style="list-style-type: none"><li>- Subject's threats, behaviors, and actions</li><li>- Each application of force, and each injury or alleged injury</li><li>- Each CEW trigger pull or 5-second discharge</li></ul></li></ul></div>



## TASER Handheld CEW Warnings, Instructions, and Information: Law Enforcement



### IMPORTANT SAFETY AND HEALTH INFORMATION



This document presents important safety warnings, instructions, and information intended to minimize hazards associated with the use of Axon Enterprise, Inc. ("Axon") TASER Conducted Electrical Weapons (CEWs). These instructions and warnings are for your protection as well as the safety of others. **Read the entire document before using a CEW.**

When used as directed in probe-deployment mode, CEWs are designed to temporarily incapacitate a person from a safer distance than some other force options, while reducing the likelihood of death or serious injury. However, any use of force, including the use of a CEW, involves risks that a person may get hurt or die due to the effects of the CEW, physical incapacitation, physical exertion, unforeseen circumstances, or individual susceptibilities. Following the instructions and warnings in this document will reduce the likelihood that CEW use will cause death or serious injury.

These warnings and instructions are effective **May 19, 2017**, and supersede all prior revisions and relevant Training Bulletins. **Immediately distribute this document to all TASER CEW users.** The most current warnings are also available online at [www.axon.com](http://www.axon.com).

- 1. Complete training first.** Significant differences exist between different TASER CEW models. Do not use or attempt to use any CEW model unless you have been trained by a Certified TASER Instructor on that particular model.<sup>1</sup>
- 2. Read and obey.** Read, understand, and follow all current instructions, warnings, and relevant TASER training materials before using TASER CEWs. Failure to do so could increase the risk of death or serious injury to the user, force recipient, or others.
- 3. Obey applicable laws, regulations, and agency Guidance.** Use of CEWs must be legally justified and comply with applicable federal, state, and local laws and regulations. The decision to use a CEW in a particular manner or circumstance must follow applicable law enforcement agency Guidance.<sup>2</sup>

**Always follow all current instructions, warnings, and TASER training materials to minimize CEW risks.**

This document uses a signal word panel to mark specific warnings:



This signal word panel indicates **a potentially hazardous situation which if not avoided could result in death or serious injury.**

Warnings may be followed by instructions and information to help avoid the hazard and improve CEW safety.

### SAFETY INFORMATION: CEW RISKS AND RISK AVOIDANCE



**Cumulative Effects.** CEW exposure causes certain effects, including physiologic and metabolic changes, stress, and pain. In some individuals, the risk of death or serious injury may increase with cumulative CEW exposure. Repeated, prolonged, or continuous CEW applications may contribute to cumulative exhaustion, stress, cardiac, physiologic, metabolic, respiratory, and associated medical risks

<sup>1</sup> A Certified TASER Instructor is not an Axon agent, but maintains a current TASER instructor certification and complies with Axon's most current training requirements, materials and license agreement. Representations inconsistent with this document made by any Certified TASER Instructor are expressly disclaimed.

<sup>2</sup> Law enforcement agencies are force experts and are solely responsible for their own Guidance. "Guidance" includes policy, custom, procedure, rule, order, directive, training, continuum, and standard. Axon has no authority to mandate Guidance, set policy, require training, or establish standards of care or conduct.





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which could increase the risk of death or serious injury. Minimize repeated, continuous, or simultaneous exposures.

**Physiologic and Metabolic Effects.** CEW use causes physiologic and/or metabolic effects that may increase the risk of death or serious injury. These effects include changes in blood chemistry, blood pressure, respiration, heart rate and rhythm, and adrenaline and stress hormones, among others. In human studies of electrical discharge from a single CEW of up to 15 seconds, the effects on acid/base balance, creatine kinase, electrolytes, stress hormones, and vital signs were comparable to or less than changes expected from physical exertion similar to struggling, resistance, fighting, fleeing, or from the application of some other force tools or techniques.

Some individuals may be particularly susceptible to the effects of CEW use. These susceptible individuals include the elderly, those with heart conditions, asthma or other pulmonary conditions, and people suffering from excited delirium, profound agitation, severe exhaustion, drug intoxication or chronic drug abuse, and/or over-exertion from physical struggle. In a physiologically or metabolically compromised person, any physiologic or metabolic change may cause or contribute to sudden death.

**Stress and Pain.** CEW use, anticipation of use, or response to use can cause startle, panic, fear, anger, rage, temporary discomfort, pain, or stress which may be injurious or fatal to some people.

To reduce the risk from CEW exposure:

1. **Minimize the number and duration of CEW exposures.** Most human CEW lab testing has not exceeded 15 seconds of CEW application, and none has exceeded 45 seconds. Use the shortest duration of CEW exposure objectively reasonable to accomplish lawful objectives, and reassess the subject's behavior, reaction, and resistance before initiating or continuing the exposure. If a CEW deployment is ineffective in incapacitating a subject or achieving compliance consider alternative control measures in conjunction with or separate from the CEW.
2. **Avoid simultaneous CEW exposures.** Do not use multiple CEWs or multiple completed circuits at the same time without justification. Multiple CEWs or multiple completed circuits at the same time could have cumulative effects and result in increased risks.
3. **Control and restrain immediately.** Begin control and restraint procedures, including during CEW exposure ("cuffing under power"), as soon as reasonably safe and practical to minimize CEW cumulative effects and the total duration of exertion and stress experienced by the subject.
4. **Avoid touching probes/wires during CEW discharge.** Controlling and restraining a subject during CEW exposure may put the CEW user and those assisting at risk of accidental or unintended shock. Avoid touching the probes and wires and the areas between the probes during the electrical discharge.

**WARNING Cardiac Capture.** CEW exposure in the chest area near the heart has a low probability of inducing extra heart beats (cardiac capture). In rare circumstances, cardiac capture could lead to cardiac arrest. When possible, avoid targeting the frontal chest area near the heart to reduce the risk of potential serious injury or death.

Cardiac capture may be more likely in children and thin adults because the heart is usually closer to the CEW-delivered discharge (the dart-to-heart distance). Serious complications could also arise in those with impaired heart function or in those with an implanted cardiac pacemaker or defibrillator.



To reduce the risk of injury:

1. **Use preferred target areas.** The preferred target areas (blue) are below the neck area for back shots and the lower center mass (below chest) for front shots. The preferred target areas increase dart-to-heart distance and reduce cardiac risks. Back shots are preferable to front shots when practicable.
2. **Avoid sensitive areas.** When practicable, avoid intentionally targeting the CEW on sensitive areas of the body such as the face, eyes, head, throat, chest area (area of the heart), breast, groin, genitals, or known pre-existing injury areas.



**WARNING** **Muscle Contraction or Strain-Related Injury.** CEWs in probe-deployment mode can cause muscle contractions that may result in injury, including bone fractures.

**WARNING** **Higher Risk Populations.** CEW use on a pregnant, infirm, elderly, or low body-mass index person or on a small child could increase the risk of death or serious injury. As with any force option, CEW use has not been scientifically tested on these populations. Use a CEW on such persons **only** if the situation justifies an increased risk.

CEWs in probe-deployment mode can cause muscle contractions resulting in injuries similar to those from physical exertion, athletics, or sports, including hernia rupture, dislocation, tear, or other injury to soft tissue, organ, muscle, tendon, ligament, cartilage, disc, nerve, bone, or joint; or injury or damage associated with or to orthopedic or other hardware. Fractures to bone, including compression fracture to vertebrae, may occur.

These injuries may be more serious and more likely to occur in people with pre-existing injuries, orthopedic hardware, conditions or special susceptibilities, including pregnancy; low bone density; spinal injury; or previous muscle, disc, ligament, joint, bone, or tendon damage or surgery. Such injuries may also occur in drive-stun applications or when a person reacts to the CEW deployment by making a rapid or unexpected movement.

**WARNING** **Secondary Injury.** The loss of control resulting from a CEW exposure may result in injuries due to a fall or other uncontrolled movement. When possible, avoid using a CEW when secondary injuries are likely.

Loss of control associated with CEW use can have several causes:

- **Seizure.** Repetitive stimuli (e.g., flashing light or electrical stimuli) can induce seizure in some people, which may result in death or serious injury. This risk may be increased in a person with epilepsy, a seizure history, or if electrical stimuli pass through the head. Emotional stress and physical exertion, both likely in incidents involving CEW and other uses of force, are reported as seizure-precipitating factors.
- **Fainting.** A person may experience an exaggerated response to a CEW exposure, or threatened exposure, which may result in fainting or falling.
- **Muscle contraction, incapacitation, or startle response.** CEW use may cause loss of control from muscle contraction, incapacitation, or startle response.

To reduce these risks, consider the person's location before using a CEW. When practicable, avoid using a CEW on a person in the following circumstances unless the situation justifies a higher risk.

**When practicable, avoid using a CEW on a person who:**

- is on an elevated or unstable surface (e.g., tree, roof, ladder, ledge, balcony, porch, bridge, or stair);
- could fall and suffer impact injury to the head or other area;
- could fall on a sharp object or surface (e.g., holding a knife, falling on glass);
- is less able to catch or protect self in a fall (e.g., restrained, handcuffed, incapacitated, or immobilized);
- has impaired reflexes (e.g., from alcohol, drugs or certain medications);
- is running, in motion, or moving under momentum;



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- is operating or riding any mode of transportation (e.g., vehicle, bus, bicycle, motorcycle, or train), conveyance (e.g., escalator, moving walkway, elevator, skateboard, rollerblades), or machinery; or
- is located in water, mud, or marsh environment if the ability to move is restricted.

### SAFETY INFORMATION: INJURY OR INFECTION

A CEW may cause injury as a result of the probe or electrical discharge. The nature and severity of these effects depends on numerous factors including the area of exposure, method of application, individual susceptibility, and other circumstances surrounding CEW use, exposure, and after care. Medical care may be required.



**Eye Injury Hazard.** A TASER probe, electrode, or electrical discharge that contacts or comes close to an eye can result in serious injury, including permanent vision loss. **DO NOT** intentionally aim a CEW, including the LASER, at the eye of a person or animal without justification.



**LASER Light Hazard.** CEWs use a LASER targeting aid. LASERs can cause serious eye injury, including permanent vision loss. **NEVER** aim a LASER at an aircraft or the operator of an aircraft or moving vehicle.



**Probe or Electrode Injury, Puncture, Scarring, or Infection Hazard.** CEW use may cause a permanent mark, burn, scar, puncture, or other skin or tissue damage. Infection could result in death or serious injury. Scarring risk may be increased when using a CEW in drive-stun mode. Increased skin irritation, abrasion, mark, burning, or scarring may occur with a CEW with multiple cartridge bays when used in drive-stun or three-point deployment modes.



**Penetration Injury.** The TASER probe has a small dart point which may cause a penetration injury to a blood vessel or internal organ, including lung, bone, or nerve. The probe or dart point (which may detach or break) can puncture or become embedded into a bone, organ, or tissue, which may require immediate medical care, surgical removal, or may result in scarring, infection, or other serious injury.

To reduce the risk of serious or permanent injury:

1. **Provide medical care as needed.** Injury due to penetration of a probe or dart point into a blood vessel, organ, nerve, or bone may require medical care. A probe, dart point, or barb embedded in a sensitive area such as the eye, genitals, breast, neck, throat, or vascular structure may cause serious injury and require medical care. CEW use may cause skin irritation, puncture wound, abrasion, mark, rash, burn, or other scar or infection, which may require medical care and may be permanent. As with any injury of this type, infection or tetanus and resulting complications may occur. In accordance with your agency's Guidance, ensure access to medical care if needed.
2. **Follow agency Guidance for removing probes.** Probe removal may cause injury. Leaving a probe in the body may result in pain or injury. Follow your agency's Guidance and biohazard protocols for probe removal. In the case of embedment, organ or bone penetration, or probe, dart point, or barb detachment, immediate medical care and possible surgical removal may be required.
3. **Follow biohazard protocols.** Use appropriate biohazard protocols including isolation procedures and protective equipment (e.g., gloves, masks, and washing of hands and exposed areas as necessary). Follow your agency's Guidance and appropriate biohazard, waste, and evidence protocols when dealing with biohazards.

### SAFETY INFORMATION: CEW DEPLOYMENT AND USE



CEWs and cartridges are weapons and as with any weapon follow safe weapon-handling practices and store your CEW securely. Follow practices herein and additional requirements in your agency's Guidance. Failure to follow these warnings may result in death or serious injury to the user or others.



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**WARNING** **Confusing Handgun with CEW.** Confusing a handgun with a CEW could result in death or serious injury. Learn the differences in the physical feel and holstering characteristics between your CEW and your handgun to help avoid confusion. Always follow your agency's Guidance and training.

**WARNING** **Trigger Hold-Back Model Differences.** If the trigger is held back, most CEWs will continue to discharge until the trigger is released or the power source is expended. With an APPM installed, the X2 and X26P can be programmed to stop a CEW discharge at 5 seconds *even if the user continues to hold back the trigger*, requiring a deliberate action to re-energize the deployed cartridge. Know your model and how it works. Avoid repeated, prolonged, or continuous CEW applications when practicable.

**WARNING** In stressful or noisy circumstances, the APPM's audible warning may not be heard.

1. **Use properly.** Use a CEW only for its intended purpose, in legally justifiable situations, and in accordance with your agency's Guidance. Do not use for torture.
2. **Store in a secure location.** Store CEWs, cartridges, and accessories in secure locations inaccessible to children and other unauthorized persons to prevent inappropriate access or use.
3. **Use the safety switch.** Place the CEW safety switch in the down (SAFE) position when the CEW is not in use. Remember to place the CEW safety switch in the up (ARMED) position when you intend to use the CEW.
4. **Assume CEW is loaded.** Always assume that a CEW is loaded and capable of discharging. To help avoid unexpected discharge, ensure that no live cartridge is in the CEW when inserting a battery pack; TASER CAM or TASER CAM HD recorder; or while performing spark tests (except when function testing the X2 or X3), maintenance, data downloading, or battery charging.
5. **Be aware of CEW trigger.** Keep your finger off the trigger until it is legally justifiable to use the CEW and you are ready to deploy.
6. **Know how the CEW works.** Significant differences exist between different TASER CEW models. Before using any CEW, including a multi-shot CEW, ensure you understand the functioning and effects of that model.
7. **Be aware of X2 and X3 deployment mode.** Be aware of which deployment mode (manual or semi-automatic) is set on the X2 and X3 before use.
8. **Be Aware of X2 Static (Fixed) LASER Sight Mode.** The X2 has static dual LASERs. One LASER is intended to approximately align with the top dart and the other with the bottom dart, both of which are set-up for 15' (4.6 meters (m)) and 25' (7.62 m) cartridges at a 15' distance from the target. The trajectory of the 35' (10.7 m) long range cartridge will not line up with the bottom LASER when placed in the X2.
9. **Use simulation (training) cartridges ONLY for training or practice. DO NOT** use a CEW loaded with a simulation training cartridge for field use or self-defense. Simulation cartridges are intended for practice only and will have no incapacitating effect on a subject. Simulation cartridges use non-conductive wires and will not transmit electrical pulses to the probes.

### SAFETY INFORMATION: CEW EFFECTIVENESS

A CEW, like any weapon or force option, does not always function as intended and is not effective on every subject. As with any use of force, if a particular option is not effective, consider using other force options, disengaging, or using other alternatives per agency Guidance. **Always have a back-up plan.**

**WARNING** **Subject Not Incapacitated.** An ineffective CEW application could increase the risk of death or serious injury to the user, the subject, or others. If a CEW does not operate as intended or if subject is not incapacitated, disengage, redeploy the CEW, or use other force options in accordance with agency Guidance.

A CEW's effects may be limited by many factors, including absence of delivered electrical charge due to misses, clothing disconnect, intermittent connection, or wire breakage; probe locations or spread; subject's





muscle mass; or movement. Some of the factors that may influence the effectiveness of CEW use in effecting or achieving control of a subject include:

- **Subject may not be fully incapacitated.** Even though a subject may be affected by a CEW in one part of his body, the subject may maintain full muscle control of other portions of his body. Control and restrain a subject as soon as possible, and be prepared in case the subject is not fully incapacitated.
- **Subject may recover immediately.** A subject receiving a CEW discharge may immediately regain physical or cognitive abilities upon cessation of the delivered CEW discharge. Control and restrain a subject as soon as possible, and be prepared in case the subject immediately recovers.
- **Drive-stun mode is for pain compliance only.** The use of a handheld CEW in drive-stun mode is painful, but generally does not cause incapacitation. Drive-stun use may not be effective on emotionally disturbed persons or others who may not respond to pain due to a mind-body disconnect. Avoid using repeated drive-stuns on such individuals if compliance is not achieved.
- **Probes may deviate.** CEWs are not precision-aimed weapons. Probe discharge, flight trajectory, and impact location can be affected by numerous factors, including cartridge or probe accuracy; failure of cartridge to properly deploy; strong air movements; user and subject movements; or probe striking subject, clothing, or object with insufficient force or trajectory to penetrate or adhere to subject. Deviations can result in limited or lack of effectiveness due to misses, failure to complete or maintain the electrical circuit, a small probe spread, or failure to deliver a sufficient charge to the subject.
- **CEW or cartridge may fail to fire or operate.** No weapon system, force option, or CEW is always operational or effective. If a CEW, cartridge, or accessory is inoperable or fails to function, consider reloading and redeploying, using other force options, disengaging, or using other alternatives per agency Guidance.

## SAFETY INFORMATION: OTHER HAZARDS

**⚠ WARNING**

**WARNING** **Probe Recoil or Ricochet.** If your target is farther away than the length of the probe wire, or if one or more probes miss the target, the probe can recoil and bounce back to strike the user or a bystander, causing injury. Probe recoil is more likely with simulation cartridges because of the nylon probe wire used.

Always be sure your target is within range. Wear protective eyewear when deploying any CEW in training or for practice. Be sure practice targets have a firm backing that will allow the probes to stick and not bounce off and strike an unintended person, animal, or object, or continue through the backing and strike objects behind the target.

**⚠ WARNING**

**⚠ WARNING** **Untethered Discharged Probe.** A discharged probe that does not impact a subject or target may become untethered from the wire and travel a significant distance causing serious injury. Always be sure your target is within range.

**WARNING**

**WARNING** **Fire and Explosion Hazard.** CEW use can result in a fire or explosion when flammable gases, fumes, vapors, liquids, or materials are present. Use of a CEW in presence of fire or explosion hazard could result in death or serious injury. When possible, avoid using a CEW in known flammable hazard conditions.

A CEW can ignite explosive or flammable clothing or materials, liquids, fumes, gases, or vapors (e.g., gasoline, vapor or gas found in sewer lines or methamphetamine labs, butane-type lighters, flammable hair gels or some self-defense sprays). Do not knowingly use a CEW in the presence of any explosive or flammable substance unless the situation justifies the increased risk.

## SAFETY INFORMATION: GENERAL PRECAUTIONS

**⚠ WARNING**

**WARNING** **Unintentional CEW Deployment or Discharge Hazard.** Unintentional CEW activation or unexpected cartridge discharge could result in death or serious injury to the user, subject, or others.



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To reduce the risk of unintentional deployment or discharge:

1. **Avoid static electricity.** Keep cartridge away from sources of static electricity. Static electricity can cause a CEW or X26, X26P, or M26 cartridge to discharge unexpectedly, possibly resulting in serious injury.
2. **Keep body parts away from front of CEW or cartridge.** Always keep your hands and body parts away from the front of the CEW and cartridge. If the CEW discharges unexpectedly you could be injured.
3. **Avoid electronic equipment interference.** Electronic transmission equipment close to a CEW could interfere with the proper CEW operation and cause the CEW to deploy or discharge. Keep the CEW at least several inches away from other electronic equipment. Place the CEW safety switch in the down (SAFE) position whenever it is near electronic equipment, including transmitting radios and cell phones. Remember to place the CEW safety switch in the up (ARMED) position before use.
4. **Avoid dropping CEW or cartridge.** If a CEW or cartridge is dropped or damaged it may unintentionally deploy or discharge, become inoperable, or fail to function, making it unsafe for continued use. If a CEW or cartridge has been dropped or damaged refer to the procedure recommended in the current version of the TASER Training materials.

### SAFETY INFORMATION: MAINTENANCE

**WARNING** Failure to maintain a CEW as instructed may cause the CEW to malfunction or fail to function optimally, increasing the risk of death or serious injury. Follow recommended maintenance procedures.

To reduce these risks:

1. **Safely perform spark (function) test before each shift.** Testing helps verify that the CEW is functioning properly. See the current version of the TASER Training materials for further information on testing.
2. **Avoid using a damaged CEW or cartridge.** Do not use a cartridge with a missing blast door unless facing an immediate threat. CEW repair or modification by an unauthorized person may cause the CEW to fire or malfunction, will void the warranty, and may put the user or other person at risk of death or serious injury. Cartridges with blast doors that have been repaired should only be used for training and not for field use.
3. **Update CEW software.** Some CEWs have updateable software. Current CEW software may be obtained by contacting Axon's Customer Service Department or following instructions at [www.evidence.com](http://www.evidence.com) or [www.axon.com](http://www.axon.com).
4. **Use only Axon-approved components, batteries, accessories, and cartridges.** The CEW is a sophisticated electronic system. For proper function, use only Axon-approved components, batteries, accessories, and cartridges with your CEW. Use of anything other than Axon-approved components, batteries, accessories, and cartridges will void the warranty, may cause malfunction, and may put the user or other person at risk of death or serious injury.
5. **Avoid exposure to wet conditions.** If the CEW is drenched or immersed in water or other liquid, **DO NOT** use or attempt to use the CEW until completing the procedure recommended by the manufacturer.
6. **Keep Smart Cartridge contacts clean.** If the contacts on the Smart Cartridge or inside the Smart Cartridge bay of the X2 or X3 are not kept clean the CEW may fail to deploy the Smart Cartridge.
7. **Know CEW and cartridge expected useful life.** Under normal storage, handling, and operating conditions, a CEW and cartridges have a 5-year expected useful life. Use or attempted use of a CEW or cartridge after its expected useful life may result in malfunctions and lack of effectiveness. Failure to properly care for and maintain a CEW or cartridge may substantially reduce or eliminate the expected useful life of the product.

### SAFETY INFORMATION: DISASSEMBLY AND DISPOSAL

**WARNING** Do not disassemble. Refer to your agency's Guidance for proper handling and disposal.