

CPRB Summary: TASER Deployment

The following summary was compiled from a review of various articles, research papers, manufacturer documentation, human rights papers and medical reviews.

In municipal law enforcement, the goal of police force is to stop a threat before death or serious injury is inflicted upon an officer or citizen.

Less lethal technologies seek to provide alternative tools to police, not replace traditional defensive weapons or eliminate police use of lethal weapons and tactics. They are designed to debilitate or incapacitate human or animal life forms with minimal or no collateral damage. These tools are designed to give a tactical advantage to police.

There are several general classifications of less lethal technologies, among them:

1. Electrical (i.e.: conducted energy: TASER, stun guns, stun batons, electrified shields & nets, sticky shockers, electrified H₂O canon, stun belts)
2. Directed Energy (i.e.: military use only; heating of a person with radiowaves)
3. Acoustic (used for crowd control, facility access; i.e.: sirens, whistles, explosives, pulse jets)
4. Chemical & Material (i.e.: stink bombs, OC, CN, anti-traction slippery foam, pepper-balls))
5. Kinetic (i.e.: projectiles, batons, bean bags, pellets)
6. Barriers & Entanglers (i.e.: NETS, vehicle stoppers, hollow spikes, sticky foam)

The versatility of less lethal tactics makes them valuable alternatives to conventional force tactics in situations involving crowd control, emotional disturbance, intoxication, and facility protection. The attachment to this document illustrates the general progression of citizen and police encounters, with an outline of relevant factors affecting the encounter.

TASER

The TASER M26 is manufactured by TASER International located in Scottsdale Arizona, trading as TASN on NASDAQ.

The M26 is an electro-muscular disruption weapon (EMD). EMD weapons operate above 14 watts, exerting direct control over skeletal muscles, allowing complete but temporary physical incapacitation. The M26 operates at 26 watts, delivering 50,000 volts of pulsing electrical current (TASER Waves). The safety is attributed to the low amperage with which the current is conducted (1.76 joules, far less than that known to cause cardiac injury or altered cardiac rhythms). Preliminary testing by TASER International prior to marketing the device resulted in a 100% incapacitation rate in less than ½ second on 220 subjects from elite military and domestic SWAT units.

Stun guns operate at 7 Watts, causing confusion by imposing electrical interference with the human sensory system. The momentary confusion permits an opportunity to subdue the subject; however, the immobilization rate is 86%.

The TASER can be deployed as an impact weapon (darts discharged) or as a touch control tactic (stun mode).

Pros:

1. TASER offers an alternative – not a substitute – to traditional police force tactics designed to gain control of a human subject.
2. Most police shootings occur within 20 feet of the subject; the TASER’s range of deployment is 6 ft. – 21 feet.
3. The intention of police force is to stop the threat - about 80% of police-discharged live fire miss the intended target – resulting in a continued threat; if the officer hits the subject with a bullet, the subject may not be incapacitated or may still be capable of returning fire even if fatally hit. The TASER renders immediate control and stops the threat – offering enhanced safety to the officer and the subject – and one study found that 79% of TASER shots hit the subject in the torso or legs and 18% missed the subject or hit danger areas.
4. Some studies report that persons hit by TASER experience an amnesic reaction and do not remember the TASER engagement; this suggests that the target has no conscious recall of pain associated with the engagement.
5. Other less lethal tactics may also expose the deploying officer(s) to its’ effects such as air contaminated by chemical sprays such as pepper-spray. TASER does not expose the officer to deployment effects.
6. TASER units internally record each discharge, which assures officer accountability if properly monitored through cross-referencing with use of force reports. (Requires hardware and software for downloading.)
7. The TASER also discharges confetti-like identification tags that identify the serial number of the cartridge fired, providing for accountability (known as AFIDs: Anti Felon Identification System.)
8. TASER incapacitates from 0.5-1.5 seconds providing an officer, with back-up present, the opportunity to secure the subject.
9. TASER can be used in dart or stun mode, allowing the gun to be deployed in close-contact encounters.
10. TASER does not seem to directly impose serious injury or long-lasting effects on persons subjected to its use.

Cons:

1. *There is a lack of conclusive research on the effects of the TASER M26 on humans; the actual effects are not known to any degree of certainty, but the effect of the alternative – deadly force*

and injuries caused by hard impact weapons and bullets – are indisputable. (Research is limited and has been concentrated on lower wattage systems).

2. An officer should never deploy TASER without a back-up officer prepared to intervene with lethal force if necessary.
3. Some individuals appear unusually sensitive or non-responsive to TASER application. One case study suggested that a fetus might be damaged if the mother is “TASERed” due to the high conductivity of the amniotic fluid. A counter-argument suggests that a miscarriage would more likely be caused by a thermal injury to the fetus from the electric current due to a shielding effect caused by the conductivity of the uterus and the amniotic fluid.

There have been several cases of death following a TASER encounter; most post-mortem conclusions identify drug intoxication, “excited delirium”, or pre-existing conditions as the cause of death. Elderly individuals may also be susceptible to reactive damage, but again, the lack of research precludes conclusive opinions.

4. The TASER unit resembles a firearm and placement on the officer’s person must be consciously considered to avoid a mistaken draw at a critical moment.
5. The TASER’s range is 6 – 21 ft. (optimal range is 7 – 10 ft.). While this is also an advantage for close quarter encounters, it limits situational deployment options.
6. The product claims effectiveness through 2 inches of clothing – which may compromise effective usability for several months in our climate.
7. The TASER’s operant temperature range is 20° – 114° F. (Environmental effects on batteries must be considered in the maintenance of the weapon to assure readiness.)
8. The darts’ wires are very thin and may break in the course of a rough encounter.
9. Some individuals may not be affected by the 5-second electrical charge of 50,000 volts at 26 watts.
10. In back-up stun mode, T-waves will not be transmitted from the TASER unit to the subject if the officer and subject are in physical contact – distance must be maintained. In stun mode, the T-waves travel between the prongs on the front of the weapon and must be pressed against the subject to be effective.
11. Minor injuries have been sustained from the barbs attaching to the skin and minor burns at the site of attachment.
12. Minor injuries have been attributed to the subject falling after being stunned or incapacitated by the TASER unit.
13. TASER units must be properly maintained and batteries fully charged so as to avoid failure at a critical time. The TASER M26 is calibrated to use eight (8) DURACELL ULTRA alkaline batteries or TASER brand NiMH rechargeable batteries. (A visual battery status indicator is embedded in the unit.)

14. There have been reported problems with flammability related to combustibles in proximity of the deployed unit. (Including ignition of flammable chemical sprays like OC, which may be present in moderately heavy concentrations).
15. TASER relies on pain to gain compliance or control of the individual. This subjects the TASER to high scrutiny for its potential to be used arbitrarily, becoming an instrument of torture. Proper application should result in consistent, predictable outcomes. Police policies must address ethical considerations of operational use of TASER.
16. Every officer must be issued a TASER unit when on-duty to assure consistent implementation of policies and procedures – as well as to assure the least amount of force is used in any encounter.
17. Training on an annual basis is necessary to assure each officer is adequately prepared to use the TASER and can demonstrate the TASER's role in the use of force continuum.

Comment

There remain fewer issues subject to more controversy, and deserving of more public scrutiny, than the use of force by domestic law enforcement officers. Public acceptance of less lethal force tactics (which sometimes appear exotic and far-fetched, though quite effective and humane) relies on the demonstrated consistency and proficiency with which the tactic is deployed.

Acceptance of alternative tactics by police officers is heavily contingent on the alternative's demonstrated reliability, safety assurances for the officer, effectiveness of control, predictability of outcome, and accountability protection.

To assure that the public and police officers are well informed, an annual use of force report should be prepared and widely disseminated. Such a report should include data on deployment of traditional, as well as less lethal, weapons, including TASER.

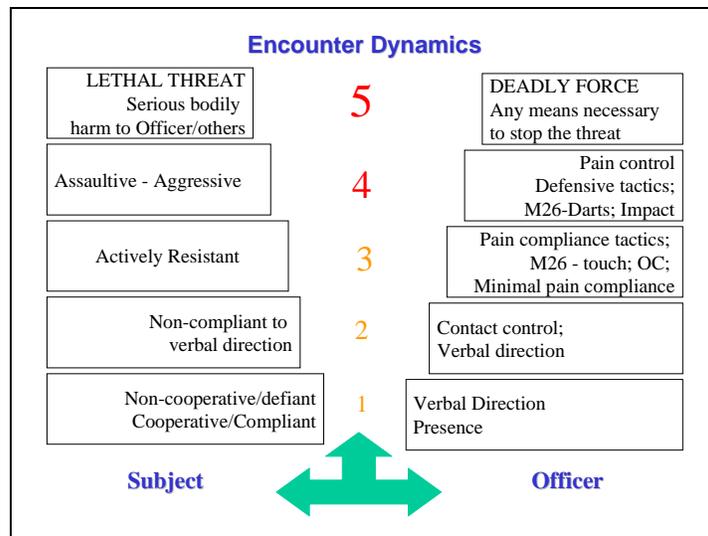
Conclusions:

For the purpose of this limited briefing, it appears that the benefits to officer and citizen safety far outweigh the *known* risks of using TASER technology.

Deployment of TASER by Pittsburgh police officers, accompanied with rigorous and annual training in its use, should be supported.

Prepared by: Elizabeth C. Pittinger
Executive Director
Citizen Police Review Board
City of Pittsburgh
412-765-8023

The nature of encounters between individuals and police officers range from the basic field contact (made when an individual is suspected of criminal activity) to violent domestics and violent crimes in progress. Any encounter between individuals (including subjects who may actually be police officers) and police officers engaged in keeping the peace, has the potential of escalating into a critical event.



The dynamics of an encounter between an individual and a police officer are determined by the response demonstrated by the individual and the interpretation of that response by the officer. The officer will escalate efforts to gain compliance and ultimate control. The goal of less lethal tactics such as TASER is to gain control of a non-compliant individual with the least injury possible.

Stopping the Threat

- Control - Impede - Stop
- An injured person - even lethally injured - may still have the momentum to carry out the action.
- Incapacitate the individual's ability to complete the action which will inflict serious injury or death.

Once an encounter has escalated beyond voluntary compliance by the subject individual, or the dynamics of an incident are likely to cause serious injury or death to another person (including the police officer), the officer must stop the threat – he/she has no discretion and is duty bound to act.

Many factors influence the behavioral responses demonstrated by the civilian and the officer during an encounter.

- Factors Influencing Subject**
- Unlawful use of drugs; adverse reaction to therapeutic drugs; alcohol
 - Mental, sensory or physical impairment
 - Motivation to evade apprehension
 - Knowledge of circumstances
 - Possession of weapons
 - Fear
 - Instinctual self-preservation

Responsible citizenship anticipates that the person would voluntarily comply with the officer's directions, knowing that a disputed matter can be resolved later in court.

- Factors Influencing Officer**
- Knowledge of circumstances
 - Environment
 - Size of and number of parties involved
 - Condition of officer
 - Training
 - Alternative array of tactics
 - Fear
 - Instinctual self-preservation
- } Tempered
by training

Because of the many variables, it is impossible to train police officers for every imaginable possibility. Therefore, we rely on professional detachment and effective training combining to internally guide the officer in appropriately managing an incident or encounter.