Certification Lesson Plan

VERSION X.1

TASER® X26
ADVANCED TASER M26

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A detailed guide to conducting the certification course in conjunction with the PowerPoint presentations supplied on CD-ROM. The detailed lesson plan

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A checklist of preparations that should be completed prior to deploying the TASER conducted energy weapons in a law enforcement agency.

User Certification Checklist H

A checklist of procedures to certify end users in the use and care of the TASER.

Use of Force Report I

Example of a use of force report developed by the Chandler, AZ Police Department. This report is included as an aid for new departments in developing reporting procedures.

X26 and M26 Certification Test K

Each instructor prior to certification must complete this test.

COURSE OUTLINE

A. **OVERVIEW:** This class will cover the techniques for proper deployment of and certification of end users in the use of the TASER less-lethal weapon.

B. **TERMINAL LEARNING OBJECTIVES:** Given person(s) to be trained and a lesson plan, instruct person(s) in the proper deployment and safety of the X/M26 TASER.

C. **ENABLING LEARNING OBJECTIVES:** Without the aid of references, in accordance with the detailed lesson plan and manual, a certified trained user will accomplish the following:

1. Pass the written test and demonstrate sufficient proficiency in the function and use of the TASER.

2. Understand how the TASER overrides and controls the central nervous systems of a combatant subject.

3. Know proper finger position for aiming and firing.

4. Be able to reload in a safe and proper manner.

5. Control unit adequately when commanded "Arm - Spark - Off" at random (understands safety switch and trigger fully).

6. Know when the TASER is armed and ready to fire.

7. Know how to properly check battery power in the Power Handle, remove and reinstall batteries correctly.

8. Know how to utilize the laser sight.

9. Understanding of probe placement and ballistics.

10. For TASER certification.

    a. Draw TASER and hit target at 12-foot distance.
    b. Draw TASER hit target at 8 feet, reload, and hit 2nd target at 12 feet with laser sight (time limit 10 seconds).

11. Learn procedures to properly and safely remove probes from subject.

D. **METHOD / MEDIA:** This class will be taught by the lecture / demonstration method.

E. **EVALUATION:** Topics from this class will be evaluated via written tests, oral tests (instructors only) and via performance checklist during the practical application conducted during the class.

COURSE TIME:

- Instructor Certification Course: 8 Hours.
- User Certification Course: 4 Hours.

CD-ROM INSTRUCTIONS

The version X.1 CD-ROM contains a number of folders. The training PowerPoint presentation can be found in the folder “movies” and is named “TASER Version X.1 Training.ppt.” The detailed lesson plan is not included in this Word Document, but can be printed from the PowerPoint document using the “Print Notes” feature.

WARNINGS

WARNING: READ BEFORE USING

The TASER conducted energy weapons are less-lethal weapons. They are designed to incapacitate a target from a safe distance without causing death or permanent injury. While the extensive medical evidence strongly supports the TASER X26 and ADVANCED TASER M26 and M18 will not cause lasting aftereffects or fatality, it is important to remember that the very nature of physical confrontation involves a degree of risk that someone will get hurt or may even be killed due to unforeseen circumstances and individual susceptibilities. Accordingly, the TASER conducted energy weapons should be treated as serious weapons and should only be deployed in situations where the alternative would be to use other force measures which carry similar or higher degrees of risk. Law enforcement customers are deployment and tactical experts and will determine all deployment and tactical practices including where the TASER conducted energy weapons fit in their respective use of force continuum.

GENERAL WARNINGS:

AVOID AIMING THE TASER CONDUCTED ENERGY WEAPONS AT THE EYES OR FACE.

DO NOT POINT AT PEOPLE UNLESS INTENDING TO FIRE.

KEEP THE TASER CONDUCTED ENERGY WEAPONS OUT OF THE REACH OF CHILDREN.

ALWAYS REPLACE DPM (ENERGY SUPPLY) THAT INDICATE BELOW 20% DPM / ENERGY CELL LIFE REMAINING IN THE TASER X26 AND REPLACE ALKALINE BATTERIES WHEN THE LED LIGHT IS NO LONGER BLINKING OR THE M26'S PULSE RATE IS NO LONGER RAPID AND CONSISTENT.

DROPPING THE TASER CONDUCTED ENERGY WEAPONS MAY SHORTEN THE LIFE OF THE UNIT.

KEEP HANDS AWAY FROM THE FRONT OF THE UNIT AT ALL TIMES UNLESS THE SAFETY IS IN THE “SAFE” POSITION.

IF GOING ON AN AIRPLANE, YOU MUST PUT THE TASER CONDUCTED ENERGY WEAPONS IN YOUR CHECKED LUGGAGE, IT CANNOT BE CARRIED ON BOARD. ALTHOUGH THE TASER CONDUCTED ENERGY WEAPONS ARE NOT CLASSIFIED AS A FIREARM, YOU SHOULD CARRY THE TASER CONDUCTED ENERGY WEAPONS IN A HARD CASE AND ADVISE TSA PRIOR TO BAG SCREEN THAT YOU ARE CARRYING TASER CONDUCTED ENERGY WEAPONS IN YOUR CHECKED BAGGAGE.

ALWAYS REPLACE AIR CARTRIDGES BY THE 5-YEAR EXPIRATION DATE PRINTED ON EACH AIR CARTRIDGE.

DO NOT FIRE THE TASER CONDUCTED ENERGY WEAPONS NEAR FLAMMABLE LIQUIDS AND FUMES. THE TASER CONDUCTED ENERGY WEAPONS CAN IGNITE GASOLINE OR OTHER FLAMMABLES. SOME SELF-DEFENSE SPRAYS USE FLAMMABLE CARRIERS LIKE ALCOHOL AND WOULD BE EXTREMELY DANGEROUS TO USE IN IMMEDIATE CONJUNCTION WITH TASER CONDUCTED ENERGY WEAPONS.

THE TASER CONDUCTED ENERGY WEAPONS CAUSES TEMPORARY INCAPACITATION AND THE INABILITY TO CATCH YOURSELF AS YOU FALL. THIS INCAPACITATION AND THE RESULTING FALL

CAN BE DANGEROUS AND EVEN FATAL UNDER SPECIFIC CIRCUMSTANCES. FOR EXAMPLE, SOMEONE SHOT BY THE X26 IN A HIGH PLACE COULD BE SERIOUSLY INJURED IN A FALL OR SOMEONE SHOT IN A SWIMMING POOL COULD POSSIBLY DROWN AS THEY COULD NOT SWIM OR SUPPORT THEMSELVES.

WHENEVER THE TASER CONDUCTED ENERGY WEAPONS ARE BEING USED DURING TRAINING OR DEMONSTRATIONS, MAKE SURE THAT TWO PEOPLE ARE ACTING AS HANDLERS TO SUPPORT THE UPPER ARMS OF THE PERSON BEING SHOT. EACH PERSON SHOULD HOLD AN UPPER ARM, SO THAT THE PERSON CAN BE SAFELY SUPPORTED AND LOWERED TO THE GROUND AFTER BEING HIT. IF PROBES BE FIRED IN LIEU OF ATTACHING SPENT WIRES OR ALLIGATOR CLIPS, THEN EYE PROTECTION IS REQUIRED. PROVIDED THAT NO PROBES ARE ATTACHED TO THE PERSONS ARMS, THERE SHOULD BE NO ELECTRICAL PULSES FLOWING INTO THE HANDLERS AND THEY CAN SAFELY SUPPORT THE PERSON BEING SHOT WITHOUT ANY NEGATIVE IMPACT

THE TASER CONDUCTED ENERGY WEAPONS CAUSES MUSCLE CONTRACTIONS THAT MAY RESULT IN ATHLETIC EXERTION TYPE INJURIES TO SOME PEOPLE.

ALWAYS MAKE CERTAIN YOUR SAFETY IS IN THE “SAFE” POSITION WHENEVER YOUR TASER CONDUCTED ENERGY WEAPONS ARE LOADED AND NOT INTENDED FOR IMMEDIATE USE.

IT IS RECOMMENDED THAT YOU CARRY THE TASER CONDUCTED ENERGY WEAPONS ONLY IN A CERTIFIED HOLSTER OR CARRYING CASE. CONTACT THE COMPANY FOR DETAILS ON HOLSTERING ACCESSORIES.

DO NOT CARRY THE DPM IN A POCKET OR ANYWHERE THE GOLD CONTACTS MAY TOUCH METAL. ONCE OPENED, STORE DPM IN THE TASER X26 WEAPON.

Introduction

(Click on image above to start video. Click once to pause.)

This first video is an actual ADVANCED TASER M26 use by the Phoenix Police Department. It's a good video to play during setup to familiarize the students with the types of scenarios where the TASER is frequently used.

TASER
INTERNATIONAL®

Instructor Certification Course * TASER® X26 and TASER M26 Less-Lethal Weapons

Version 10.1 Released November 2003

Purpose of Training

To provide you with the theory and practical training necessary to effectively instruct users to safely operate the TASER® M26 and X26 weapons as a less lethal option.

Expectations

- Please silence cell phones and pagers
- Please adhere to scheduled break times
- You must successfully complete the entire curriculum to be certified as a TASER less-lethal weapon instructor
- Ask questions. If we don't know the answer we'll find it for you.

Overview

- Technology overview
  - What is it and what does it do?
- Electrical and medical background
- Issue M26s to class for hands on use
- Specifications
  - How does it work?
- Practical hands-on training with M26
  - Volunteer exposure
  - Changing batteries and air cartridges
  - Firing drills
  - Drive stun
  - Tactical considerations
  - Probe removal considerations

Overview

- X26 differences
- Field applications
  - What can go wrong
- Safety considerations and associated risks
- Practical hands-on training with X26
  - Volunteer exposure
  - Changing batteries and air cartridges
  - Firing drills
  - Drive stun
  - Tactical considerations
  - Probe removal considerations
- Final written and oral presentation

Objectives

- The student will be able to explain how the TASER conducted energy weapons override the central nervous system
- Demonstrate proficiency in the function and use of the TASER weapons

Overview

(Click on image above to start video. Click once to pause.)

This video provides a synopsis of the TASER Electro Muscular Disruption (EMD) technology developed from the start of the ADVANCED TASER M26 to the new TASER X26 EMD pulse technology.

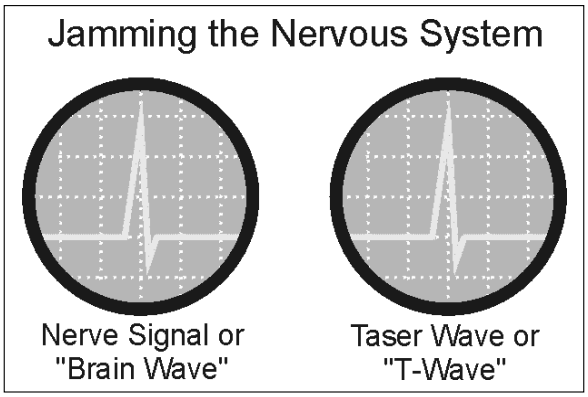
Technology Overview

Definitions

Conducted Energy Weapons use propelled wires to conduct energy that affects the sensory and motor functions of the central nervous system.

The TASER® X26 and **ADVANCED TASER® M26 less-lethals** are conducted energy weapons manufactured by TASER International, Inc. in Scottsdale, Arizona.

Technology



- The human nervous system communicates with simple electrical impulses
- The TASER technology uses similar electrical impulses called TASER-Waves

INSTRUCTOR'S NOTE: *The TASER X26 and M26 send out short duration, high voltage electrical waves or TASER-Waves™ or T-Waves that overpower the normal electrical signals within the nerve fibers*. If you look at a scope reading of the wave signals used by nerves to communicate within the body, the T-Wave is very similar to the signals used by the nerves. These T-Waves create extra "noise" within the nervous system much like static on the "phone lines" of the human body. Discuss how the body's communication is analogous to having a conversation on a telephone where signals are sent from one phone to another via electrical signals. Should a third person pick up this phone line and begin to scream (analogous to a T-Wave in the body), the other two persons can no longer hear communication. Just as important, when the screaming stops, communications begins again without damage to the phone line.

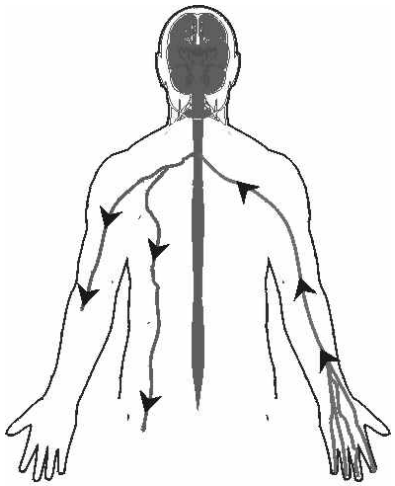
Stun to EMD

- **STUN** systems: 1st and 2nd generation conducted energy weapons jam the central nervous system with electrical noise. This only affects the **sensory nervous system: (pain compliance).**

- **EMD** (Electro-Muscular Disruption) systems: 3rd and 4th generation conducted energy weapons stun AND override the central nervous system causing uncontrollable contractions of the muscle tissue. The X26 and M26 weapons affect both the **sensory AND motor nervous system: (incapacitation).**

INSTRUCTOR'S NOTE: *Stun systems act by "stunning" the target with a high level of electronic stimulation. However, highly focused individuals may not be incapacitated by the stun effect by stun devices or even in drive stun techniques. EMD systems use a more intense electrical waveform to directly cause contraction of the muscles and override the central nervous system. Thus, the EMD systems not only stun the target; they physically debilitate the target by contracting the muscles.* ***At a high level, stun systems affect the sensory nervous system (i.e., it creates very intense sensations which will stun the target) whereas the EMD systems affect the motor nervous system and muscles causing direct physical incapacitation.***

Stun vs. EMD



Central Nervous System

Command center (brain and spinal cord) processes information and makes decisions

Sensory Nervous System

Nerves that carry information from the body to the brain. Touch, temperature, etc.
Stun systems affect these nerves

Motor Nervous System

Nerves that carry commands from the brain to the muscles to control movement
EMD systems affect BOTH the sensory and motor nerves

The human nervous system is the command, control, and communication system of the human body. The nervous system is comprised of three elements:

The central nervous system is the command center including the brain and spinal cord. All information processing and decision making processes occur in the central nervous system.

The sensory nervous system includes the nerves that carry information to the brain. These are the "intelligence gathering" nerves which carry information about the environment (hot, cold, wet, etc.) and the state of the body (pain, body positioning, etc.) to the brain. These nerves tend to sit near the surface of the body in the skin, where they can interface with the skin and the environment around the body to gather information. The location of these nerves near the skin makes them easier to stimulate than deeper nerves. Hence, lower power stun weapons affect only these nerves.

The motor nervous system includes the nerves that carry command signals from the brain to the muscles controlling all movement. These nerves are located deeper in the body, protected within and beneath the muscle tissue. It takes a greater amount of blunt power (and a different waveform) to penetrate deep enough to control these motor nerves or by using Shaped Pulse technology. Thus either higher blunt power and deeper penetrating waveforms or more efficient Shaped Pulses of an EMD weapon are required to affect these nerves.

TASER Less-Lethal History

- **1974:** Original TASER less-lethal 7-Watt firearm
- **1993:** TASER International, Inc. founded
- **1994:** AIR TASER #34000 (7-Watt)
  - Non-firearm stun weapon
  - Smaller, automatic timing
- **1999:** ADVANCED TASER M26 EMD
  - EMD: Central Nervous System Override
  - Dataport function & integrated laser
  - 3,600+ agencies deploy the M26 as of 11/2003
- **2003:** TASER X26 Shaped Pulse™ EMD
  - 5% more powerful
  - 60% smaller & lighter
  - Digital Pulse Controller

INSTRUCTOR'S NOTE: *Jack Cover was the inventor of the TASER during 1966-1974. As a chief scientist for the NASA Apollo Moon Landing Program, Jack responded to President Johnson's Blue Ribbon Commission's call for development of non-lethal weapons. During the development of the TASER non-lethal weapon (1966-1974), it was discovered that very short duration (microseconds), high energy, predominately D.C. (Direct Current) pulses were non-lethal and non-injurious, but had a profound physiological and psychological effect upon both humans and animals. In the 1971-74 period, tests on volunteers were done under the supervision of Dr. Frank Summers with two cardiologists, a physiologist, EKG and other instrumentation at St. Joseph's Hospital in Orange County, CA.*

TASER Int'l developed the 7-Watt AIR TASER as a non-firearm version of the TASER (the older TASER uses a black powder charge propellant) made of ***high impact sonic welded polymer****. It's output and effects are very similar to the original TASER. The model 34000 AIR TASER improved on the first generation by reducing the size (roughly 50%), replacing the gunpowder propellant with 1800 PSI compressed nitrogen (non-firearm) and adding an automatic timing mechanism to administer the pulsed energy.*

Between 1994 and 1999, we learned that the 7-Watt stun systems were not sufficiently effective to stop focused, combative aggressors. Animal testing in 1996 lead to the development of 26 Watt Electro-Muscular Disruption (EMD) technology. EMD technology was first introduced in 1999 with the ADVANCED TASER M26 - the first less-lethal weapon capable of stopping focused aggressors by overriding the central nervous system. The M26 also introduced the concept of the dataport to track the usage of the weapon.

In 2002, we conducted further studies to refine the EMD waveforms. The result is Shaped Pulse Technology, complex waveforms that achieve the EMD effect at much lower power levels than the M26.

In 2003 the first Shaped Pulse weapon, the TASER X26 was introduced. Advanced Shaped Pulse Technology makes the X26 5% more powerful than the M26, yet 60% smaller and lighter.

Stun/Incapacitation vs. EMD

(Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

INSTRUCTOR'S NOTE: *The test subjects were given the goal to move toward the TASER operator. The subjects who are stunned are slightly impaired while the EMD effect results in complete incapacitation.*

Pain to Incapacitation

- All previous less-lethal weapons have worked on pain compliance that can be overcome by drugs, alcohol, EDPs or by focused, combative individuals.
- The X26 and M26 less-lethals do not rely on pain to achieve compliance. These override the central nervous system and achieve incapacitation.

All less-lethal weapons have worked on pain compliance that can be overcome by drugs, alcohol, EDPs or by mental focus.

The M26 and X26 do not rely on pain to achieve compliance. It overwhelms the central nervous system and achieves incapacitation

From Pain to Incapacitation

Click on image above to start video. Click once to pause.)

This video is the first human test of the EMD technology on Hans Marrero, Retired Chief Instructor of Hand to Hand Combat for the United States Marine Corps.

Pain Compliance to Incapacitation

(Click on image above to start video of 10% OC spray. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

Side by side comparisons of Royal Canadian Mounted Police (RMCP) tactical officers involved in survival training. The officers are hit with OC pepper and challenged to attack a practice pad with batons strikes, then attack a second pad with knee strikes, then call on the radio for backup. Each officer is shown taking the pepper spray hit on the left and the M26 hit on the right side. **The purpose here is not to depreciate a valuable tool such as pepper spray. OC spray has contributed greatly to the field of law enforcement and will continue as a valuable tool in the law enforcement "toolbox." Instead, this video demonstrates the speed of which the EMD devices affects the subject and that a goal-oriented and focused individuals are unable to resist the effects of the M26. FYI: OC deployed was 10% Oleoresin Capsicum.**

Electrical and Medical

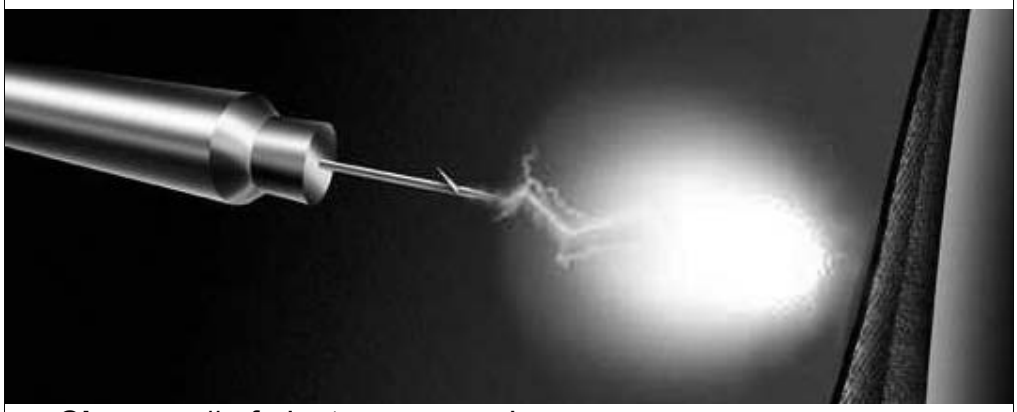
Electrical 101

- "It's not the volts, it's the amps that are dangerous…"
- High Voltage: 50,000 Volts
- Low Amperage: M26 & X26 < 0.004 amps
- Safe energy: M26 = 1.76 Joules per pulse
  X26 = 0.36 Joules per pulse
  - Cardiac defibrillators are greater than 150-400 Joules per pulse
- High Voltage + Low Amperage = Safe & Effective weapon

- It's not the Volts that are dangerous; it's the amps that determine safety
- The electrical output of the TASER is 50,000 Volts. The voltage may seem high, but the amperage on both systems is well below safe limits.
- ADVANCED TASER M26 output is 3.6mA average current (0.0036 Amps) The X26 output is 2.1mA (0.0021 Amps).
- The output of the M26 into a human body is a fraction of the dangerous level.
- High Voltage + High Power + Low Amperage = Safe & Effective weapon
- (Voltage is a measure of how far an arc of electricity can travel through the air.)

* M26 instructors will note that the weapons are rated in average amperage rather than root mean square (Irms) amperage as had been done previously. Due to the complex shape of the X26 waveform, and based on the results of our safety testing, we believe that average amperage is the more relevant metric.

Electric Units



Charge: # of electrons per pulse

Amperes: Total electrons per second

Volts: "Pressure" pushing electrons

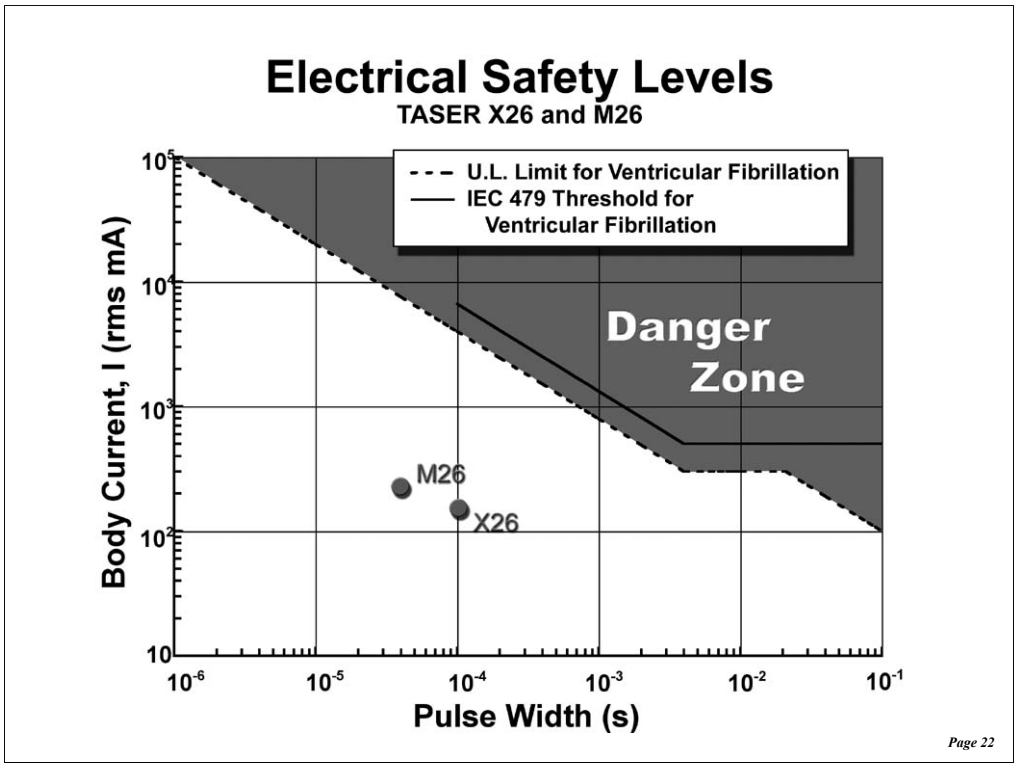
Energy (Joules): Energy in single pulse

Power (Watts): Energy per second (sum of pulses)

In Depth Technical Review:

We don't recommend that you try to teach all of the details below to the class, these are for instructor knowledge to answer technical questions.

- **Charge** is actually how many electrons are in **each pulse** from the TASER. For example, each pulse from an M26 contains 1,136,000,000,000,000 electrons ($1.136 * 10^{15} = 1.136$ quadrillion). Because these numbers are so ridiculously large, charge is normally measured in Coulombs. 1 Coulomb = 6.24×10^{18} or 6.24 quintillion electrons. The charge in one M26 pulse = 0.000182 Coulombs, or 182 microcoulombs.
- **Amperes** measure the flow of electrons (i.e. how many electrons are delivered **each second**). 1 Ampere = 1 Coulomb of charge per second. For the M26, the amperage is 20 pulses per second * 182 microcoulmbs = 3,640 microamperes or 3.64 milliamps.
- **Voltage** is the amount of "pressure" pushing the electrons or electric charge through a circuit. The TASER energy weapons use a peak voltage of 50,000 volts so that the electrons can be propelled across a 2 inch air gap. The high voltage causes electrons to "jump the gap," a process that "ionizes" the air gap in what appears to the user as a bright arc.
- **Energy** is a function of how many electrons are in each pulse, and the pressure behind them -- hence energy is a function of both Voltage and Charge. Each pulse in the M26 contains 1.76 joules of energy. (Technically, this is the energy stored in the main capacitor. The actual output energy per pulse is somewhat less because of efficiency losses in the output transformer.)
- **Power** is the total energy transferred each second. For the M26, 1.76 joules of energy * 20 pulses per second = 35.2 Watts (the M26 was originally rated at 26 watts, based on 15 pulses per second with alkaline batteries. NiMH rechargeable batteries offer better performance, up to 35 Watts because they can sustain a higher pulse rate).



Underwriters' Laboratories, Inc. (electrical fence safety guideline) **defined proven safe electrical current for people between 2 - 75 years of age. IEC 479 is a safety standard commonly used in Europe.** Studies have shown there are no long-term effects from being shot by TASER technology. The key concept of this slide is that students see the electrical output of the TASER is at a fraction of the danger level on the chart – a significant safety margin.

Instructor's Note: The X and Y axis of this chart (Body Current and Pulse Width) are logarithmic. The increments are exponential. Hence the M26 and X26 are nowhere close to the dangerous ventricular fibrillation levels in the red zone.

Safety: Pacemakers

- Modern pacemakers withstand electrical defibrillators several hundred times stronger than TASER conducted energy pulses

According to FDA standards, implantable cardiac devices such as pacemakers and or Implantable Cardioverter Defibrillators (ICDs) must be designed to withstand the output of cardiac defibrillators that function at significantly higher power levels than the TASERs. If placed in direct contact with a pacemaker, the electrical output could momentarily affect it without health endangerment. See below:

	Energy per Pulse
Defibrillators	150.00 - 400.00 Joules
M26	1.76 Joules
X26	0.36 Joules

Pacemakers and ICDs are designed to withstand the extremely high energy (360 joule) shocks delivered by external defibrillators. This is required by standards and every pacemaker and ICD model must be shown to be able to withstand the effect of such shocks. (Active Implantable Medical Device requirements 90/385/EEC).

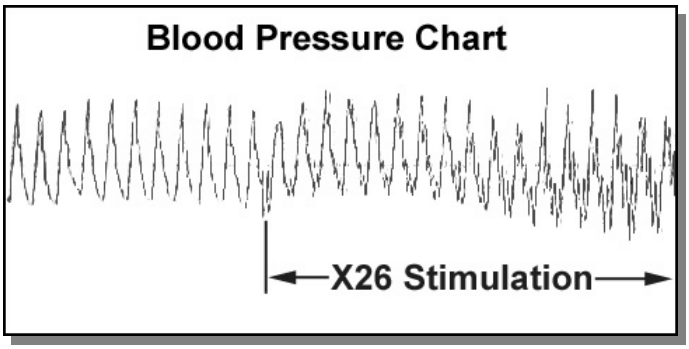
INSTRUCTOR'S NOTE: *Dr. Paul Hendry, Co-Director of the Pacemaker Clinic at the University of Ottawa Heart Institute concludes that, "With regard to it's (the M26's) medical safety, based on the information that was provided to me I cannot see that it should provide any increased risks to patients with either pacemakers or implantable defibrillators."*

Medical Safety

- **TASER** weapon tests have found:
  - **No effect on heart rhythms**
    - Tested on animals
  - Estimated uses on 50,000 human volunteers (M26) as of 11/2003
  - 99% instant incapacitation in less than a second
    - No long-term effects
  - The electrical outputs are still well within the safe levels defined by international standards
  - Minor skin irritation, sometimes temporary blisters or redness

INSTRUCTOR'S NOTE: *There have been an estimated 50,000 volunteers who have been hit with the M26. There are over 3,400 documented field uses of the weapon as well. It is estimated that only 20% of the field uses are reported to TASER International, hence it is estimated there have been over well over 17,000 field uses of the M26. There have been no long term injuries caused by the TASER. Note: The use of the TASER technology cause incapacitation and thereby secondary injuries can occur. This includes cuts, bruises and abrasions caused by falling. These short term injuries are secondary in nature and are reversible injuries.*

Medical Safety



Heart rate (the larger peaks & valleys of the graph) is unchanged during TASER X26 EMD stimulation directly through chest, across the heart. The smaller fluctuations are the result of skeletal muscles stimulated by the X26. As the muscles contract, they squeeze the blood vessels within them causing minor increases in blood pressure. However, there is no change in the heart rate nor the peak blood pressure related to the beating of the heart.

INSTRUCTOR'S NOTE: *The illustration is a blood pressure reading from an anaesthetized pig. The X26 was applied across the chest with the two probes in a "worst case" scenario (the points most likely to stimulate the heart). Note that the heart beat continues normally. The small fluctuations in blood pressure are the result of skeletal muscle contractions that add fluctuations to blood pressure. It is important to note that the heart rate does not change at all. This is important because it shows that the level of the X26 stimulation is below the threshold to pace the heart (I.e. if the TASER pulse were above the pacing threshold, the heartbeat would speed up when stimulated by the TASER). It is well documented in the medical literature that the level required to fibrillate the heart is well above the level required to pace the heart. Hence, if the X26 is below the pacing threshold, it is therefore well below the fibrillation threshold.*

Common Effects of EMD

- Subject can fall immediately to the ground
- Yell or scream
- Involuntary muscle contractions
- Subject may freeze in place with legs locked
- Subject may feel dazed for several seconds/minutes
- Potential vertigo
- Temporary tingling sensation
- May experience critical stress amnesia
- May not remember any pain

Medical Safety: Drugs

- The ADVANCED TASER M26 EMD was applied directly to the chest of test animals during tests at the University of Missouri without heart failure
- Using "worst case" scenarios, two cardiac safety experts found no interference by the M26 weapon with the heart rhythms
- No interference occurred when the animal subjects were given dangerous drugs (epinephrine and drugs similar to PCP and cocaine) that make the heart more susceptible to electrical stimulation
- Animal studies prove cocaine does **not** make the heart more susceptible to electrically induced fibrillation

See copy of review letter from University of Missouri for details on TASER cardiac safety tests, see medical safety section on CD-ROM.

A study of ventricular fibrillation threshold using 20 anesthetized animals found that there was no increase in vulnerability to electrically induced fibrillation while under the influence of cocaine. See abstract and reference below.

Pharmacotherapy 1996 May-Jun;16(3):429-37

The effect of cocaine on Ventricular fibrillation threshold in the normal canine heart. Tisdale JE, Shimoyama H, Sabbah HN, Webb CR. College of Pharmacy and Allied Health Professions, Wayne State University, Detroit, MI 48202, USA.

We determined the effect of cocaine on ventricular vulnerability to fibrillation, as measured by ventricular fibrillation threshold (VFT), and cardiac electrophysiology in 20 anesthetized dogs with normal hearts. Animals were randomized in blinded fashion to receive a continuous 3-hour infusion of cocaine 0.11 mg/kg/minute (total dose 20mg/kg) or placebo (lactose dissolved in normal saline). The VFT, systolic and diastolic blood pressures, ventricular effective refractory period (ERP), and electrocardiographic intervals were measured at baseline and every 30 minutes during infusion. Baseline mean +/- SE VFT in cocaine and placebo groups was 57.0 +/- 7.8 and 51.8 +/- 7.6 mA,respectively ($p = 0.64$). Cocaine did not significantly decrease VFT, but actually increased it (i.e., reduced ventricular vulnerability to fibrillation) compared with placebo (84.6 +/- 10.4 vs 55.8 +/- 7.2 mA, respectively, at 150 minutes, $p = 0.04$). Cocaine prolonged ERP and PR, QRS, QT, QTc, JT, and JTc intervals. Cocaine does not increase ventricular vulnerability to fibrillation in anesthetized dogs with normal intact hearts. Its electrophysiologic effects are similar to those of class I antiarrhythmic agents in this model.

What TASER Weapons Might Do

- Might cause slight signature marks that resemble surface burns -- appear red or may blister
- Can cause eye injury if shot too high
- Causes strong muscle contractions
- Can cause secondary injuries from person falling

What TASER Weapons Don't do

- Does not damage nervous tissue
- Does not cause serious burns
- **Does not cause "electrocution" in a wet environment**
- No reports of TASER weapons causing death
- Electrical output not harmful to fetus (but consider secondary injuries from the fall)
- Generally does not cause urination* or defecation
- Safe for use within commercial aircraft

* To date, only 1 urination case reported with volunteer during a 5-second M26 ride, shot to the back across the spine during training course.

INSTRUCTOR'S NOTE: The M26 was test fired onboard an A320 during a Category III landing without any adverse effects. The ADVANCED TASER is used by the U.S. Air Force during 2002 - 2003 for detainee flights from Afghanistan to Guantanamo Bay, Cuba. The RCMP has deployed the drive stun during a flight in which a combative male was incapacitate. In April 2003, Greek Special Police Forces deployed the M26 on a male hijacker when the aircraft was stormed. The suspect was incapacitated near the cockpit.

The M26 is currently deployed by several non-U.S. air carriers.

The nitrogen capsule has a mechanical seal and requires an electrical charge to deploy it.

SIDEBAR: *Commercial high explosives almost always require a sudden shock (such as a blasting cap) to start the explosion. They are made this way because far too many people were killed in accidental explosions when they were using the earlier sensitive explosives. Commercial high explosives will detonate (explode) between 3,300 feet per second and 30,000 feet per second. If they explode (deflagrate) below 3,300 feet per second, then they are called low explosives. Low explosives usually do not require a blasting cap because they explode by burning very fast. Low explosives (fireworks and gunpowder) are more dangerous and cause more injuries than high explosives because low explosives are sensitive to heat, friction, static electricity, and shock. Home made explosives can be high or low explosives but they are usually sensitive to heat, friction, static electricity and shock.*

Wet Environments

(Click on image above to start video. Click once to pause.)

INSTRUCTOR'S NOTE: *Water does not affect the output of the TASER weapons or cause electrocution (death by shock). The amount of energy out of the weapon is determined inside the weapon, regardless of target conditions. The batteries of the M26 and X26 are already operating at full output capacity. If the target is wet, there is no increase in power output as the M26 and X26 are already at maximum power. The president of TASER Int'l was shot with the AIR TASER while standing in a pool of water to prove this effect. The weapon is safe to use in light rain or wet conditions as long as the TASER or the front of the Air Cartridge is not drenched in water and the dataport plug is in place.*

INSTRUCTOR'S NOTE: *As for the splash resistance, one of the weak points to the M26 weapon is the dataport plug. If the rubber stopper is removed, liquid spills could get into the M26 while holstered. Also, note that there is a hole on the laser sight that water could get into. If the M26 is soaked, do not turn the M26 on -- let it air dry completely before turning it on. If dataport plug is lost, please contact TASER Int'l and get it replaced immediately (no charge).*

The X26 is splash resistant as well. The weak point is the separation between the battery and the butt of the X26. If the X26 is soaked, do not turn the X26 on -- let it air dry completely before turning it on.

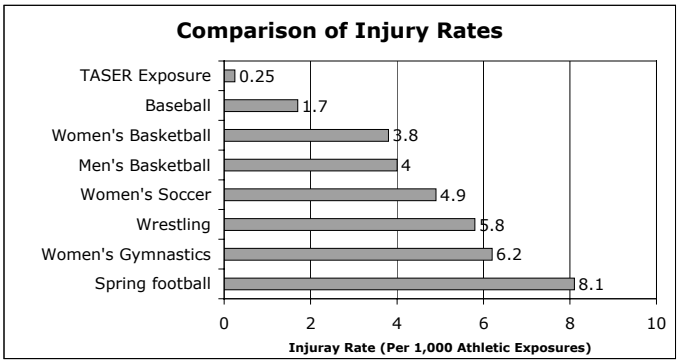
Volunteer Exposure

WHY EXPOSURE IS RECOMMENDED

- Instructor credibility as a leader and subject matter expert
- Officers can better understand the effects of the weapon
  - For deployment
  - Confidence that touching an exposed subject will not cause similar shock
  - Self-defense
  - Court expertise

PRACTICAL PORTION FOR TASER EXPOSURE

Volunteer Exposure



CAUTION

Subjecting yourself to the TASER involves physical exertion similar to an athletic activity such as playing a game of basketball. The risk of injury from physical exertion or falling, while very low, is not zero. **Volunteering is highly recommended, but is not mandatory.**

* Source: NCAA Injury Surveillance System Summary (For Athletic Practices - games have higher injury rates)

PRACTICAL PORTION FOR TASER EXPOSURE

There have been an estimated 50,000 volunteer hits with the ADVANCED TASER M26. There have been fewer than 10 reported injuries, which have included:

- A separated shoulder from a person who fell while trying to run toward the TASER operator. Hence, do not run
- Strained back muscles
- A torn rotator cuff
- Cut to scalp from falling backwards. Subject was anticipated to fall forward but fell backwards onto unmated floor requiring stitches.
- It is not entirely clear that all of the reported injuries were indeed related to the TASER. However, they can not be ruled out in their entirety because of the physical exertion involved. Hence, we believe it is appropriate to forewarn volunteers that being hit with a TASER is an act of physical exertion, and hence there is a small risk of sports-like injury. However, even a rate of 1 in 4,000 is significantly lower than for other athletic type activities such as CQB training.
- Further, there has been one instance of an individual who experienced a seizure that started approximately half way through a 5 second TASER burst and lasted for approximately 30 seconds after the TASER application. The subject received prompt medical attention, and his case has been reviewed by medical doctors. The diagnosis was that the seizure was most likely psychologically induced. For this reason, it is important that volunteers understand the act is, indeed voluntary, not mandatory.
- In one other instance, a subject passed out approximately 60 seconds after TASER exposure. Cause was determined to be dehydration and low blood sugar (individual hadn't eaten in 7 hours, had worked out just prior to class).
- Overall, it is anticipated that the risk of injury from TASER exposure is lower than for close quarter combat or other physical training.

Volunteer TASER Exposure
Let's Roll!

(Click on image above to start video. Click once to pause.)

Safety Requirements

- **Eye protection**
- **Proper matting**
- **Clear area of bystanders and objects**
- **Spotters grab hold <u>before</u> and during exposure**
- **Make area safe**
- **Careful probe removal**

FAILURE TO FOLLOW THESE SAFETY PROCEDURES INCREASES THE RISK OF INJURY.

This is the point where volunteers should be exposed to the TASER. See demonstration guidelines for safety recommendations.

Students should relieve themselves by going to the bathroom prior to exposures in order to not have a stress related urination.

Also, students who are dehydrated or have low blood sugar should hydrate or eat a light snack prior to exposure.

INSTRUCTOR'S NOTE: A training point is that whoever removes the probe must check the probe body and insure that the probe is intact and that the straightened barb is still attached to the probe body. There have been a few reported cases in which the probe was removed from a body but the pin/straightened barb pulled free of the body and remained in the skin. Needle-nose pliers will be required to remove this to get a firm grip or by hemostat by EMS or hospital.

There have also been a few reported incidents where the barbed tip broke off and only the small barb remained in the skin. In this instance, the barbed tip would behave similar to a small metal splinter, however removal by medical staff is still advised.

MAKE SURE OFFICERS EXERCISE CARE DURING PROBE REMOVAL - KEEP YOUR FREE HAND CLEAR OF THE PROBE AREA TO ENSURE YOU DO NOT SCRAPE YOURSELF WITH THE CONTAMINATED BARB.

Arcing Through Clothing

- One probe can arc through 2 cumulative inches of clothing or 1 inch of clothing per probe

(Click on image above to start video. Click once to pause.)

Body Armor Penetration

(Click above to start video of RMCP Soft Body Armor Class II vest -- 22 layers of Twaron fab)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

Weapon Safety 101

- Never point at anything you don't intend to shoot
- Keep the weapon SAFETY ON until pointed in a safe direction (toward the target)
- Never place finger on trigger unless firing is imminent
- **Laser light can cause eye damage if directed into eyes for prolonged periods of time**
- Probes shot in the eyes can cause serious damage
- Never place hand in front of weapon, especially when changing Air Cartridge

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Review the points of basic weapon safety to ensure students treat the weapon with the care attendant with a weapon system.

LASER INFO: in the US, a division of the Food and Drug Administration (FDA) known as the Center for Devices and Radiological Health <http://www.fda.gov/cdrh/radhlth/index.html> (CDRH) regulates the manufacture and classification of laser products. The federal regulations covering lasers is CFR http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=1010&showFR=1> AND http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=1040&showFR=1. CDRH classifies lasers based on exposure times, wavelength, and power. Typically lasers are classified into one of several classes: Class I, Class II, Class IIIa, Class IIIb, and Class IV. The higher the class, the greater the chance of injury associated with the laser. A general classification guideline based on output power alone is shown below.

The TASER brand TASERs emit a laser that will not burn human skin at all. However, humans must avoid direct and prolonged eye exposure as with ANY laser. The laser light emitted from this aperture is similar to common laser pointers used for projection screens. Class 111A laser product complies with 21 CFR 1040.10 & 1040.11. Max output 5MW. Wavelength 630-680 NM. Note: Class IIIA: Intermediate power lasers (CW: 1-5 mW). Only hazardous for intrabeam viewing. Some limited controls are usually recommended.

Class I, Class II and Class IIIA Lasers

Accident data on laser usage has shown that Class I, Class II Class IIA and Class IIIA lasers are normally not considered hazardous from a radiation standpoint unless illogically used. (FYI: there is a label affixed to the ADVANCED TASER and TASER X26 conducted energy weapons, and it does specify that it is a class IIIA laser as required by law. The label is located directly under the laser housing.)

> Direct exposure on the eye by a beam of laser light should always be avoided with any laser, no matter how low the power.

All laser devices distributed for both human and animal treatment in the U.S. are subject to Mandatory Performance Standards. They must be meet the Federal laser product performance standard and must submit an "initial report" to CDRH's Office of Compliance prior to distributing the product (see 21 CFR 1000-1040.11). This performance standard specifies the safety features and labeling that all laser products must have in order to provide adequate safety to users and patients. A laser product manufacturer must certify that each model complies with the standard before introducing the laser into U.S. commerce. This includes distribution for use during clinical investigations prior to device approval.

For more information, see http://www.fda.gov/cdrh/consumer/laserfacts.html.

Issue M26's To Class

Issue M26's to the class with BladeTech Holster, Secondary Cartridge Clip and 2 EXPENDED (used) Cartridges with wires removed. Have students wear the holster for the remainder of the course (until replaced later with the X26).

Holster: Pro's & Cons

Support Side Carry	Dominant Side Carry
+ Lower Risk of Drawing Wrong Weapon Under Stress	+ Weapon Retention
+ Hip crossdraw = Faster Engagement on Target	
+ Easier ID of Less-Lethal By Other Officers	**- Higher Risk of Confusion Depending on Training**
- Weapon retention issues, depending on DT training	3 incidents of accidental shootings by mistaken weapon
Refer to your department's tactical experts to make your own policy on how to carry, holster and deploy the TASER X26 or M26	

Need to add: *Departments are the tactical experts and need to make their own policy on how to carry, holster and deploy the M26 and X26.*

Instructor: Review the pro's and con's of dominant side vs. support side carry. The three incidents related to dominant side carry are:

Sacramento Police, CA: Black M26 on dominant side carry below sidearm in April 2001. An officer applied a drive stun technique several times to a resisting drunk suspect. Each time the M26 was reholstered and after several separate applications, the officer mistakenly drew his Sig Sauer sidearm and fired it into the hip of the suspect who survived.

Rochester Police, MN: In November 2002, an officer responded to a disorderly conduct incident and upon arrival, immediately exited his vehicle to aid another officer who was engaged in a fight with the suspect. While exiting his vehicle, the officer placed his issued black M26 in one of his uniform pants pockets, located on the officer's primary side. During the scuffle, the officer decided to use his M26 to subdue the resisting suspect and while attempting to feel for the M26 weapon on his primary weapon side, he accidentally drew his primary lethal weapon instead and fired one round, striking the suspect near the kidney side of his body. The shooting was non-lethal and the suspect did survive the incident. Prior to this incident, when the Rochester PD first obtained the M26 they trained their officer's to carry the TASERs in belted hip type zippered bag,

Madera Police, CA: In December 2002, an officer with a black M26 accidentally shot a male subject who was handcuffed in back of a police cruiser following an incident after officers broke up a party in an apartment. The officer intended to subdue the suspect who was kicking out the windows of the cruiser by using her M26. Instead, the officer drew her service weapon, a 40-caliber Glock 23, and shot Torres in the chest, killing him.

All three agencies have since switched to a support side carry and have yellow M26s.

ADVANCED TASER M26

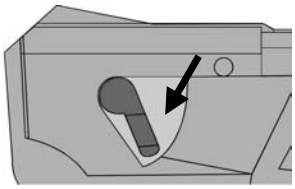
Constructed of impact resistant sonic welded polymer

Mass = 18 ounces

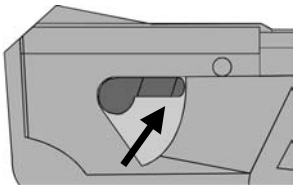
Optional Yellow Coloration

Ambidextrous Safety

- **SAFETY ON**
  - **– (Down)**



- **SAFETY OFF**
  - **– (Up)**
  - **– Activates Laser & Battery Indicator**



Instructor Note: When the safety is down, the weapon is in safe mode and the weapon cannot fire. When the Safety is shifted up into the armed mode, the weapon is armed and will fire when the trigger is activated.

M26: When armed, the laser is turned on and the Alkaline battery indicator lights up.

Trigger Operation

- Single trigger pull fires current for 5-second cycle
- Trigger pulls during the 5-second cycle will not affect the cycle unless held continuously
- Holding the trigger continuously beyond the 5-second cycle will continue the electrical cycle until trigger is released. (The cycle will cease immediately once the trigger is let go in this case.)
- Shut off unit ASAP if accidentally discharged

The M26 can fire 10 back to back 5-second cycles without risk of overheating to preserve life of training weapons. Continue as necessary in field use.

Allow the M26 a chance to cool if possible

(NOTE: The X26 does not overheat.)

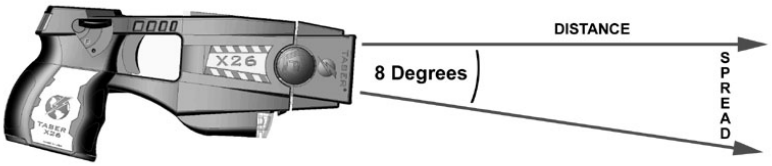
M26: Secondary Cartridge Clip

(Optional Accessory -- Simply Replaces Battery Cover)

Probe Trajectory

- Aim like a standard firearm at center of mass
- Use sights and/or laser
- Observe standard sidearm safety guidelines
- Rule of Thumb: 1 foot spread for every 7 feet

DISTANCE = 7 X SPREAD



Target Distance (ft)	2'	5'	7'	10'	15’	21’
Spread (in)	4"	9"	13"	18"	26"	36”

Review 8-degree downward spread of bottom probe.

When fired, the top probe impacts at point of aim. The bottom dart travels at an 8-degree angle downward. The spread between probes increases the further you get from your target **with the probes separating one foot for every 7 feet they travel.**

The wire is thin insulated wire (copper-clad steel) and can break easily. (Show how thin wire is).

Reversible Loading

(Click on image above to start video. Click once to pause.)

Both the M26 and X26 automatically cant the Air Cartridge to force the top probe to fire straight out at the point of aim while sending the bottom probe at a 8-degree angle downward.

Cartridge Types

15 ft.

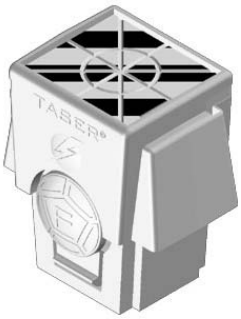
Solid Yellow Door

Live Cartridge
Regular Probe

21 ft.

Striped Door

Live Cartridge
Regular Probe



XP 21 ft.

Yellow Cartridge

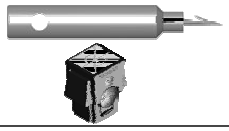
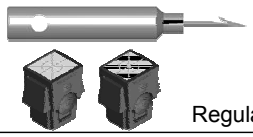
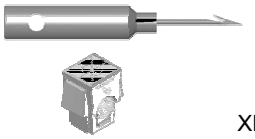
Live Cartridge
XP Probe
Longer, Heavier

LS 21 ft.

Blue Cartridge

Live Simulation
Short Probe Non-Conductive Wire.
Stun portion works!

Probe Types

	Mass (g)	Needle Length	Speed	Momentum Kg*m/s	Energy Kg(m/s)^2
 LS	1.6g	.20" 0.50 cm	*166 fps to 98 fps*	*0.85 to 0.50*	*2.0 to 0.7*
 Regular	1.6g	0.35" 0.89 cm	166 fps to 98 fps	**0.85** to 0.50	2.0 to 0.7
 XP	4.1g	0.52" 1.32 cm	100 fps to 76 fps	1.35 to **1.02**	1.92 To 1.09

Top figures @ muzzle

Bottom figures @ 13 feet

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The XP probe is made of brass, much more dense than the aluminum of the other probes. XP mass of 4.1 g more than 2.5x the regular dart.

In the speed, momentum, and energy columns, the top number is the value at the muzzle, the bottom number is the value at 13 ft. For example, the regular dart's speed is 166 feet per second (fps) at the muzzle, but drops to 98 fps at 13 feet.

The most important thing to look at is the momentum. Momentum is the ability of an object in motion to cause other objects to move - such as a pool ball hitting another pool ball causing it to move. In this application, momentum is the ability of the projectile to move or compress clothing on impact. Note the the higher mass of the XP probe yields over 60% more momentum at the muzzle. And, because of the extra mass in the projectile, it retails momentum and velocity better over distance. The momentum of the XP probe at 13 feet is 20% greater than the regular probe at the muzzle.

It should also be noted that the decay in velocity is significant - primarily due to the wires unspooling and creating drag on the projectiles.

Propulsion System

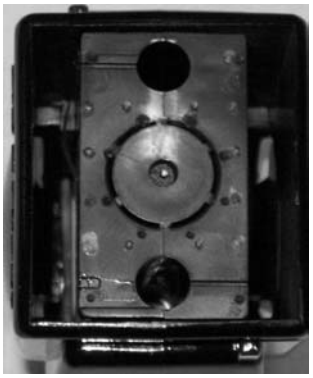
- 1,800 PSI nonflammable nitrogen capsule
- 2 probes fired at 160+ feet per second
- Maximum range: 21 feet

The compressed nitrogen cylinder is shown in the post-firing position, with the puncture pin through the bottom of the capsule.

Wires

- Wires are steel with insulated coating
- Wires can break easily if stepped on or pulled
- Inadvertent contact with wires or the probe during firing can result in electrical shock
- TASER weapon operator must advise officers to avoid wires during restraint for wire integrity

Cannot Fire



Expended cartridge with wire and probes missing

Can Fire

(but not reliably)

Blast doors missing. Return to factory for free replacement.

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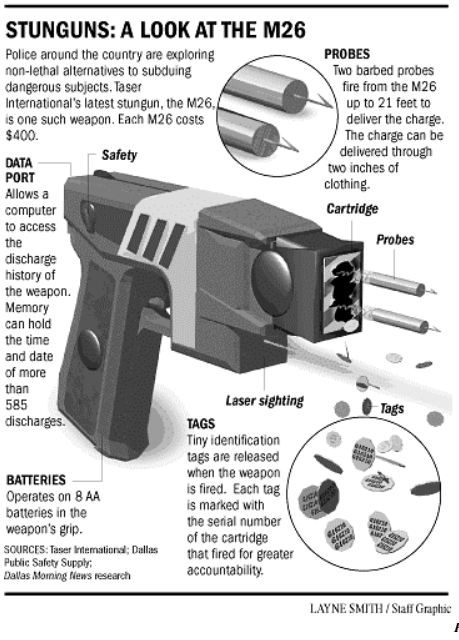
Emphasize the difference between an expended cartridge (left) and a live cartridge where the blast doors have fallen off.

The cartridge at right may still fire, although not reliably. It should be returned to the factory for replacement.

Weapon Management

- AFID ID Tags
  - 20-30 fired with each cartridge
  - Originally provided to track civilian use if ever used in criminal act (also used for officer accountability)



Purpose: to prevent abuse and protect officers from unfounded allegations through solid documentation of usage.

AFID (Anti-Felon Identification): Every time an Air Cartridge is fired, it disperses 20-30 identification tags called AFIDs. These tags are printed with the serial number of the cartridge and can be used to determine who fired the cartridge. These were originally created for civilian sales of TASER conducted energy weapons to deter criminal use. As an offshoot of this technology, officers should be aware this system is an additional for accountability of the department to trace users who are not following department policy and are using the TASER inappropriately.

Dataport

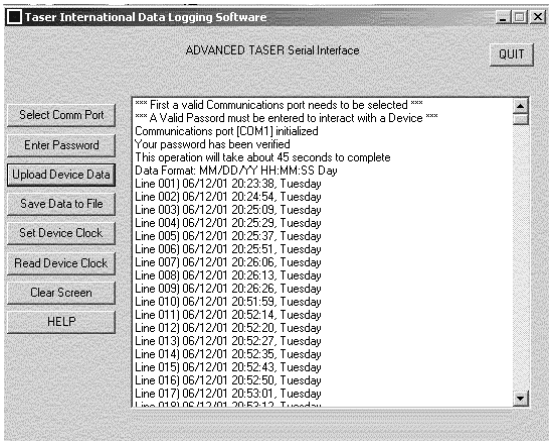
Connection Kits Sold Separately

- M26 Serial Dataport
  - Stores time and date of each firing (last 585)
  - Protects officers from unfounded allegations
  - Officer accountability
  - Rubber stopper must be in when dataport not in use!
  - Allows remote firing from robots
  - Serial Port Interface

Dataport: the dataport connects the M26 to a computer. The M26 stores the time and date of the last 585 times it was fired. By downloading this data, the department can monitor usage patterns. Every officer who is issued a M26 can be accountable for every firing of the unit. Each trigger pull of the M26 is akin to recording a "date/time stamp" of its most recent 585 firings. It will not provide the duration of the current nor will it distinguish between a TASER probe firing or a drive stun. Note also that several trigger pulls can be recorded during one single 5-second cycle. This often happens during stressful shootings as offers tend to double and triple tap the trigger from fire arms training. This will not affect the duration of the 5-second cycle unless the the trigger is depressed after the 5-second cycle has occurred or if the finger were to hold the trigger continuously depressed beyond the 5-second cycle. The dataport readout can then be read by counting the number of seconds that have passed to determine the number of actual firings of 5-second cycles. For example, if there are 5 trigger pulls that print out for one 5-second cycle and the date/time stamps are less than 5-seconds, this equals only one discharge of the 5-second cycle.

The concept is to protect officers from false allegations of misuse by proving exactly how many times and when the unit was discharged. The rubber stopper should be kept in the M26 dataport at all times to protect against water and dirt contamination. The dataport can also allow the unit to be remotely fired by tactical robots. The M26 dataport is pre-programmed to Greenwich Mean Time (GMT) but its clock can be reset by a password protected program.

Dataport Download: M26



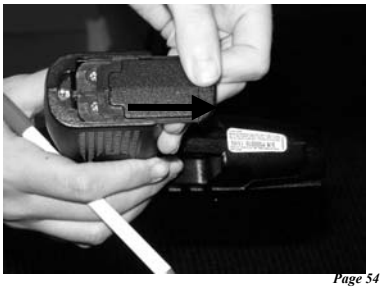
- **Discharge M26 in stun mode prior to download to confirm current time as relative point of reference**
- **CRITICAL - If you return a damaged M26: DOWNLOAD & SAVE dataport info in case it is that M26 is called into question or litigation in the future**

Most returned or damage M26 conducted energy weapons are destroyed at TASER Int'l since these are rarely repaired. The destroyed weapons are thus unable to be downloaded in the event that an incident is later called into question.

Changing Batteries and Air Cartridge

M26 Battery Cover Removal

- Place SAFETY ON
- Remove Air Cartridge
- Depress battery cover pin with cuff key, or pen
- Slide cover out
- Remove & load battery mag
- Secondary Cartridge Clip: Use a pen as a cuff key won't fit



Place in "safe" mode **(CRITICAL!)**

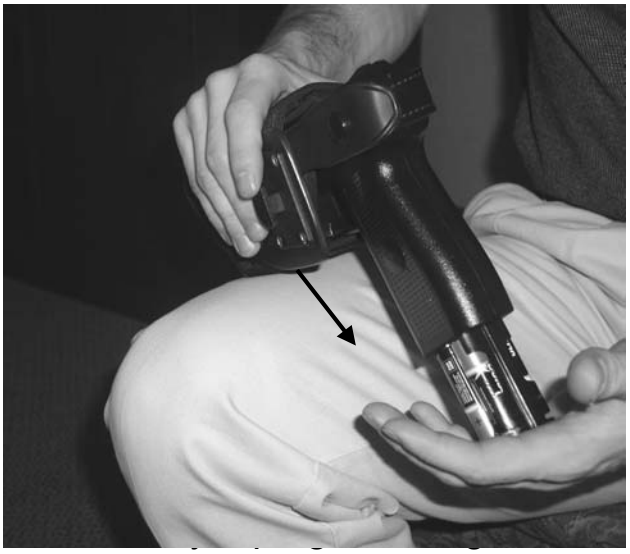
Remove Air Cartridge **(CRITICAL!)**

Depress battery cover pin with cuff key, or pen (Note: with secondary cartridge, a pen or paper clip is required as a cuff key won't work)

Slide cover out

Remove and load battery tray

M26 Battery Removal



- Use palm to catch magazine

Prior to installing or removing the battery, ensure the Air Cartridge has been removed!

Gently tap the base of the M26 handle against thigh and use palm of hand to catch magazine.

M26 Battery Insertion

- Insert 8 AA batteries using “V-Shape”
- Match +/- polarities properly
- Reinsert battery mag (battery contacts first)
- Reinstall battery cover
- Place SAFETY OFF
- Perform battery check and spark test for 5-seconds
- Return SAFETY ON
- Replace Air Cartridge

INSTRUCTOR'S NOTE: <u>IT IS OF UTMOST IMPORTANCE TO PLACE THE M26 IN THE SAFE MODE AND REMOVE THE AIR CARTRIDGE PRIOR TO CHANGING BATTERIES.</u>

Also, it is extremely important to use caution when carrying a loaded battery tray outside the M26 unit. There have been reported cases of officers carrying them in their pockets and causing them to short circuit by arcing the contacts points with keys or other metallic objects. The batteries can overheat and rupture if they are short-circuited. It should be the practice of officers to carry loaded battery trays in such a manner to prevent any accidental arcing of the contact points of the tray.

Note, the laser will work even if a single battery has been put in incorrectly in the tray. Yet, the spark rate will be degraded to the point that a failure of the M26 could occur. Ensure that the a spark test is performed after the batteries have been replaced.

M26: Approved Batteries

- Using approved batteries is mission critical to the success of the stopping power

NiMH Rechargeable

18-20 pulses per second, constant until drained

Alkaline

12-15 pulses per second on fresh set, slowly degrades

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Batteries are run at their maximum capacity by the M26. Using approved batteries is mission critical to the success of the stopping

TASER® NiMH Rechargeable batteries were designed specially for ADVANCED TASER. 1500 mAh, 1.2 Volt NiMH.

Energizer® ACCU Rechargeable AA Nickel Metal Hydride (NiMH) 1.2 Volt batteries. 1200 milli amp hours (mAh) to 1800 mAh are acceptable.

INSTRUCTOR'S NOTE: *The higher the mAh number, the longer the charge will last. The milliamp hour rating (mAh) will vary in availability and the higher the mAh, the higher the price.*

Alkalines: **Duracell® Ultra** 1.5 Volt AA. Do not use just plain "coppertop" Duracells. Ultras have a blue band or blue swirl. **Energizer® e² ™ Titanium** 1.5 Volt AA

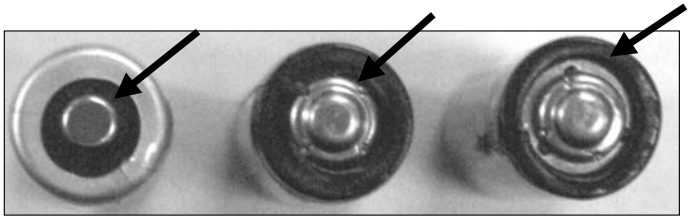
Rechargeable Nickel Metal Hydride (NiMH) batteries give the strongest output, and perform much better in cold weather. **These must be recharged every two weeks. Also, the battery indicator will not work with NiMHs.** Remove the Air Cartridge and check for rapid pulse rate. **Uncharged batteries will cause weapon failure.**

Alkaline batteries have a stronger shelf life and the selection of the battery is very important. There are only two alkaline batteries recommended for optimal performance: the Duracell Ultra® and Energizer® Titanium series. Each has clearly marked expiration dates. **Be very careful that you get the ULTRA, not the regular "coppertop" Duracell alkaline!** You must check for the blue band around the middle of the battery indicating it is the new ULTRA series.

INSTRUCTOR'S NOTE: *In a perfect world, you will get a little more power out of the rechargeable NiMH batteries. You can observe the power output by simply observing the pulse rate of the unit when activated. Since each pulse is identical, the more power, the faster the pulse rate will be. In general, the good aspect of the Duracell Ultra is that they don't require recharging and can be left in the unit for months at a time without problems and have long expiration dates. If using NiMHs, check and charge every two weeks -- requiring much more maintenance. If you do not ensure they are charged regularly, this will cause weapon failures in the field.* ***BATTERY FAILURES WITH RECHARGEABLE BATTERIES IN OLDER TASERs HAVE RESULTED IN FATALITIES BECAUSE OFFICERS HAD TO USE LETHAL FORCE.***

M26: NiMH Battery Selection

Ensure No Cardboard Ring Around Contact



Non-approved NiMH batteries may have non-conductive cardboard covering the positive top base (see red arrow)

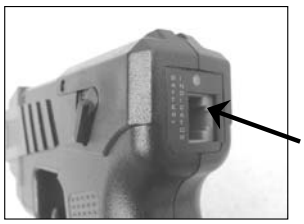
Battery tray springs might not make complete contact and can result in malfunction during firing. The firing percussion will separate the +/- connections for a split second immediately stopping automatic electrical cycle

The middle and right tops will work as the top bases of each positive end are exposed

Removing the cardboard may destroy the battery and void the warranty of the battery in most cases. Batteries without cardboard rings are available directly from TASER International.

Battery Indicator: M26

- LED light operates when SAFETY IS “ARMED”
- Battery indicator works with alkaline batteries ONLY -- not NiMH rechargeables
- NiMH: Spark Test & Recharge every 2 weeks.



For alkaline batteries:

- Pulsing light = good batteries
- Steady light = low batteries (unit can work, but change soon). Check that batteries are in correct +/- positions
- No light = change batteries

M26 Battery Charger

- Batteries can be charged directly through dataport or on base unit. Both will charge, but not simultaneously.
- Ensure safety is on and Air Cartridge is removed prior to charging batteries.

Direct charge to M26

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IT IS EXTREMELY IMPORTANT TO PLACE THE M26 IN THE SAFE MODE AND REMOVE THE AIR CARTRIDGE PRIOR TO CHARGING THE WEAPON! If a wire gets crossed, the charger could cause the Air Cartridge to discharge.

Charger is a "smart charger" and provides charge based upon battery requirements

The charger only trickle charges after green light to prevent overcharging

Remove batteries when charged

The batteries in the M26 charge first, then batteries in the base

Recharge NiMH batteries a MINIMUM OF every two weeks

Replace dataport plug when complete

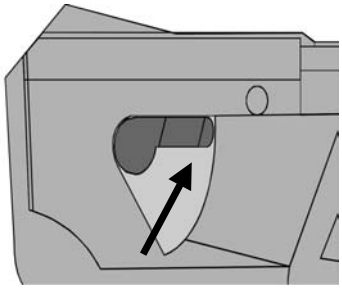
Loading Cartridges

- Safety first!!
- Treat this as a loaded weapon
- Key areas to watch:
  - Always place SAFETY ON (down)
  - Keep fingers clear from blast doors
  - Point weapon in safe direction
  - Keep finger off the trigger

INSTRUCTOR'S NOTE: *Let students practice loading. Expired Air Cartridges may be used for training, but should never be deployed. Officers must turn-in expired Air Cartridges to a supervisor for training use only. These expired cartridges are not for field use.*

Ready

- Draw M26 weapon from holster
- Keep finger off the trigger
- Point in safe direction
- Place SAFETY OFF (safety switch up)



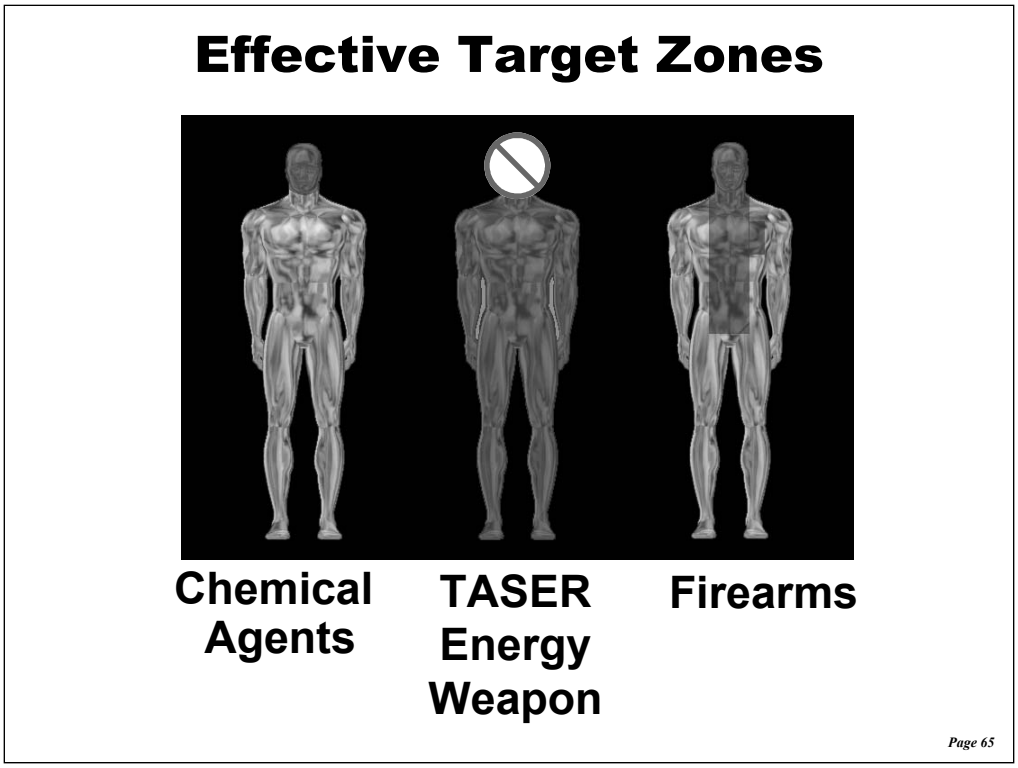
Aim

- Aim at target: Center of mass or legs
- Laser is point of impact for top dart
- TASER weapon fires probes in line with 8-degree probe spread
- Right handed trigger pulls may cant weapon to left

Proper Aiming Techniques

- Optimum shot = 7 to 15 ft from target
- Deploy per department SOP
- Aim similar to sidearm = center of mass (or legs if thick clothing is present)
  - Hold level unless subject is laying down
  - If possible, fire M/X26 at suspect's back:
    - Clothing fits tighter
    - Surprise factor
    - Stronger muscles -- even more overwhelming
  - No face, throat or groin exposure

***INSTRUCTOR'S NOTE**: If subject is shot while running, the officer must keep pace with the subject, as the running momentum of the subject will break the TASER-Wires. (Officer's must run with the subject if they are to utilize the TASER against a running target similar to "walking a dog on a leash.") Also, subjects shot at extreme range of 21 feet may fall and break the TASER-Wires. Therefore, shots should have ample "slack" for the person to fall to the ground without breaking the wires. (If there are any Air Cartridges with wires, pass the wire around the room to show how thing the insulated TASER-Wire is and have the officers break the wires to enhance this point).*



Unlike aerosol chemical agents, the entire body is effective target zone. **DO NOT AIM AT HEAD/THROAT UNLESS SITUATION DICTATES A HIGHER LEVEL OF INJURY RISK IS JUSTIFIED.**

Explain that the entire back is also a good target for the TASER.

Toronto SWAT Incident

(Click on image above to start video. Click once to pause.)

INSTRUCTOR'S NOTE: *Toronto SWAT deployed a M26 on a catatonic subject who had previously fired a gun outside (later found to be a starter's pistol). The tactics are important. The M26 shot was from an armored vehicle and was aimed so that the probes would not hit the thick jacket. The operator was able to place the probes in the midsection of the center of mass. The subject was apprehended without further incident and the gun was a starter's pistol.*

Aiming Drill

DRILL: AIMING DRILL (Holsters are not completely necessary as the officers can draw their TASER weapons in a simulated fashion consistent with how they carry it in the field.)

First, have the students draw and arc the weapon without cartridge in place. Let them arc several times "get it out of their system." Have them point the laser around the room, making sure not to aim into any other student's face or eyes.

Split the class in half. Have them partner up and face each other, 12-18 feet apart. Have them draw the weapon from cross draw or support side, and point shoot at their partner (again with no LIVE cartridges present).

1. Make sure that a safety check is completed to ensure there are no live cartridges. (There should be NO Air Cartridges of any type for his drill)

2. Begin with half the students drawing, lasing the target, then reholstering. Use the following commands: "Draw," "Arm," "Safe," and "Holster." When simulating a firing, the students must yell, "TASER, TASER!"

- Start slowly, then move to combat speed. Repeat 4-7 times, or until instructor feels class performance is adequate.
- Repeat 3, but have them switch from target to target while remaining in a combative shooting stance. Use command "Switch" to change targets. Repeat 4-7 times, or until instructor feels performance is adequate.
- Repeat #3, aiming to original target. Instructor commands "Spark On," "Spark Off" for students to practice operating the trigger and safety. Repeat 4-7 times, or until instructor feels performance is adequate.
- Repeat 2-5 above with the other half of the class.

Reloading Drill

Reloading Drill: Instructor Demonstrates Each Step

- Instruct students to obtain 2 EXPENDED Cartridge, loading one in secondary cartridge clip and one in the firing chamber
- Command "Draw" . . . Draw the weapon, take off safe, and lase target (not human target, random point)
- Command "Reload" . . .Safe the weapon, retract weapon to eye level in front of face, remove primary cartridge and drop to ground, reload 2nd cartridge from secondary cartridge clip if present or other carrier.
- Command "Aim" . . . Aim at target
- Command "Holster" . . . Reholster weapon, retrieve cartridge from ground and load into secondary cartridge clip or other carrier.
- Repeat 4-7 times, or until instructor feels performance is adequate.

Loading Under Stress Drill

- Students perform exercises to elevate heart rate to combat levels. Suggestions: running in place place, 50 meter sprint, side straddle hops (jumping jacks), or push ups. Check for students with medical limitations on exercise types or levels.
- Once heart rate is elevated, students to load, unload, reload cartridge 5 times in 15 seconds (for speed, this is done with only one cartridge - in the firing bay, there is no need to alternate between the firing bay and secondary cartridge clip)

REMEMBER: THESE DRILLS ARE TO INCREASE MUSCLE MEMORY

Practical Application

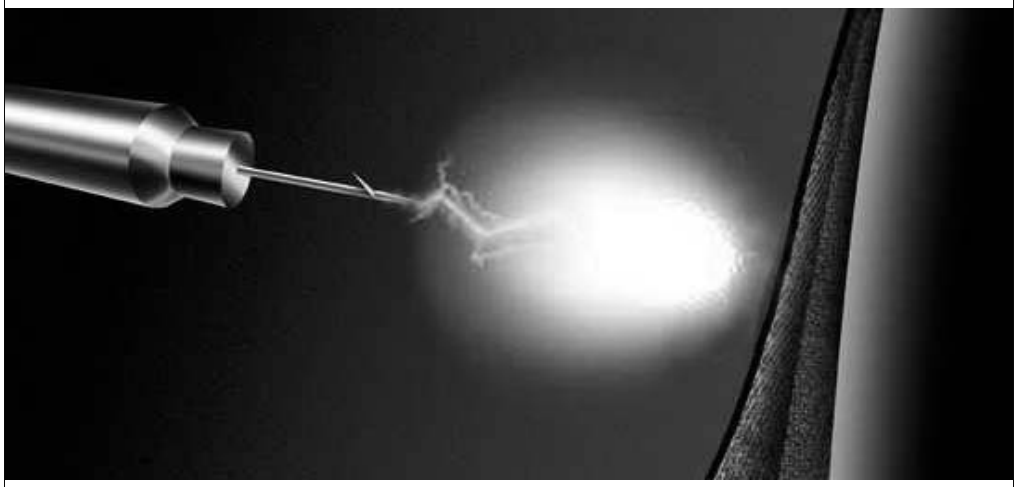
First Firing Drill

Students are issued one live cartridge and will fire first shot at a conductive target. This is a relaxed, familiarization. Do not increase heart rate (low stress).

Issue X26's To Class

Issue X26's with Dual Cartridge Holsters, and eXtended Digital Power Magazine (XDPM). Have each student install the DCH on the eXoskeleton Holster and wear the unit for the remainder of the class.

Traditional "Blunt" Pulse



High Energy, "Brute Force" Approach

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The Shaped Pulse Generator technology revolution that made the X26 possible. Like the TASER weapons before it, the X26 fires two probes up to a distance of 21 feet. The X26 transmits pulsed energy through the wires into the central nervous system of the target causing immediate incapacitation.

Previous generation conduced energy weapons use a simple high energy, "blunt" pulse to penetrate through the skin and clothing barriers that serve as protective armor around the body. Over 90% of the energy is lost while penetrating the barrier. Thus, high power levels (26 Watts) are required to generate an EMD effect, resulting in large batteries requirements that add weight and size to the 18 ounce M26 weapon.

The X26's Shaped Pulse technology uses a highly refined energy pulse that concentrates a small portion of energy to first penetrate the barrier, while the majority of electrical charge is held in reserve, flowing freely through the barrier once the leading edge has penetrated. Two pulses comprise the Shaped Pulse phases:

- The first phase, called the "Arc phase" is optimized to generate a very high voltage to penetrate clothing, skin or other barriers. The "Arc phase" is a very high voltage short duration pulse that can arc through up to 2 inches of clothing or barriers. Once the arc is created, the air in the arc is ionized and becomes a low impedance electrical conductor that conducts the second pulse phase into the body.

- The second phase of the Shaped Pulse is the stimulation phase, or "Stim phase." The Stim Phase does not have to arc across a barrier, since this was accomplished by the Arc Phase. The Stim phase only has to flow across the highly conductive arc from the Arc Phase. With less energy lost with this new process, less wattage (5 Watts) is required from the X26 to cause the EMD effect. Hence, the Stim phase is optimized to provide maximum incapacitation for a human target while operating at super-efficient power levels.

The timing is so fast that to most electronic instrumentation, and all human observers, the Shaped Pulse appears as just one output pulse (arc).

The result of Shaped Pulse EMD Technology is a high-performance, highly efficient less-lethal weapon with an incapacitating effect that's 5% greater than even the vaunted M26, in a weapon that is 60% smaller, 60% lighter and consumes 1/5th the power.

Electrical Specifications

	X26	M26
Voltage	50,000 V	50,000 V
Amperage (avg)	2.1 mA	3.6 mA
Energy / Pulse	0.36 J	1.76 J
MDU's	105	100

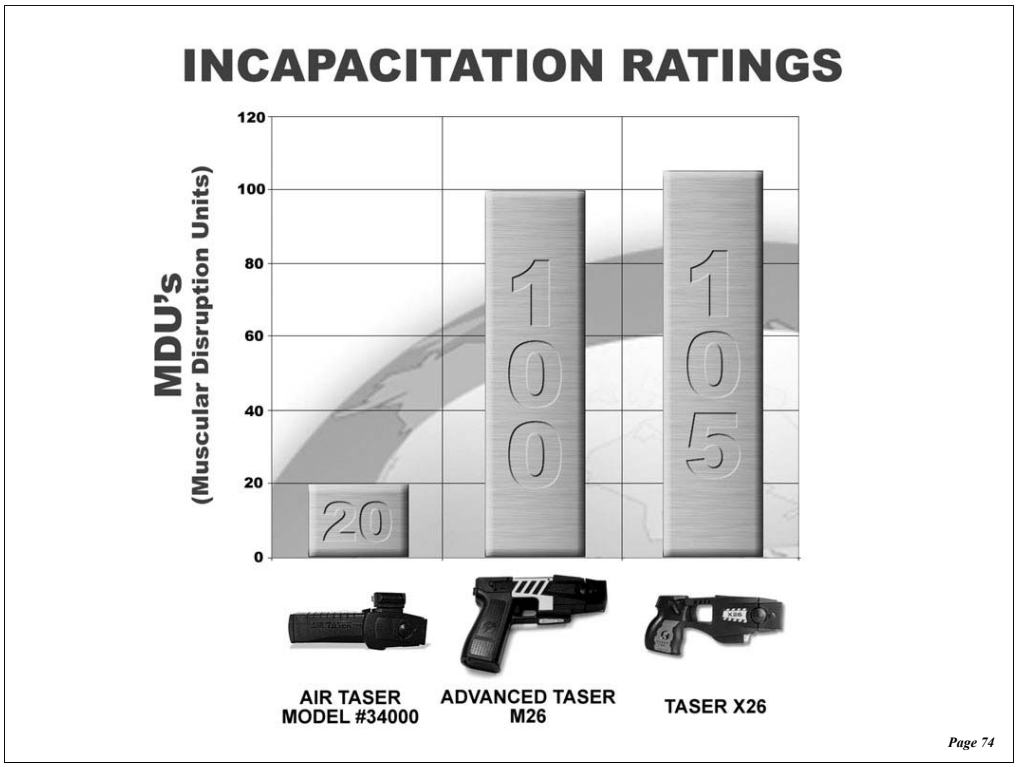
- It's not the Volts that are dangerous; it's the amps that determine safety
- The electrical output of the TASER is 50,000 Volts. The voltage may seem high, but the amperage on both systems is well below safe limits.
- The M26 emits 26-Watts of energy. The X26 emits 5-Watts of energy

* M26 instructors will note that the weapons are rated in average amperage rather than root mean square (Irms) amperage as had been done previously. Due to the complex shape of the X26 waveform, and based on the results of our safety testing, we believe that average amperage is the more relevant metric.

Pulse Impact Comparison
(15 second arc to skin)

The energy lost in penetrating the barrier of skin and clothing is converted into heat energy. Hence, the M26 generates significantly more heat when arcing through the skin. As shown in this picture, the drive stun from the M26 leaves a significantly larger burn-like area. The X26, which is much more efficient, does not generate as much heat, and hence much less skin irritation.

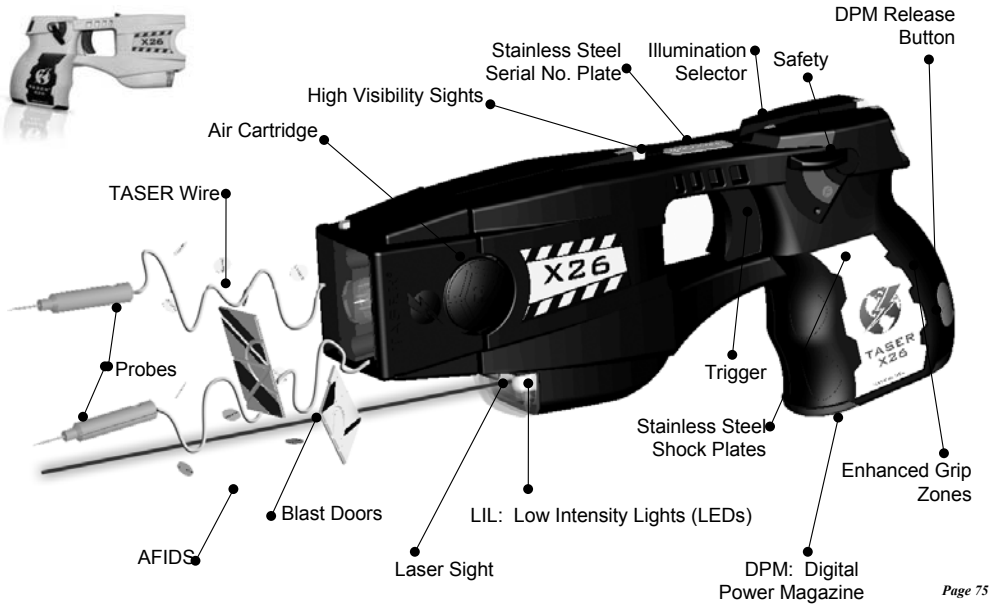
NOTE: Both of these marks were created by a long, 15-second drive-stun burst to the skin of an anesthetized pig (very similar to human skin).



In order to optimize the Shaped Pulse technology that made the X26 possible, our development team first needed to develop a tool to quantify the Electro-Muscular Disruption (EMD) effect of the ADVANCED TASER M26. This tool is a ***proprietary bio-response rating scale known as MDUs***, or Muscular Disruption Units. MDU's quantify the amount of incapacitation caused by a pulsed energy weapon based upon the physical response to EMD weapons. Since the M26 is well established as the superior standard in less-lethal incapacitation, the effect of the M26 is defined as 100 MDU's. In the final development, the X26 was tuned to operate at 105 MDU's, or 5% above the M26, offering the highest degree of takedown power ever available with the same level of safety.

TASER X26

Constructed of impact resistant sonic welded polymer & stainless steel shock plates. Mass = 7 ounces. Available in yellow coloration.



X26: Digital Pulse Controller (DPC)

- Digitally controls pulse rate
- Consistent performance
  -4°F to +122°F
  -20 C to +50 C
- 5-second burst
  - 0-2 sec @ 19 pps
  - 2-5 sec @ 15 pps
  - If trigger held beyond 5-second cycle @15 pps
- Initial "punch" to drop
  - Increases effectiveness
  - Enhances safety
  - Extends battery life

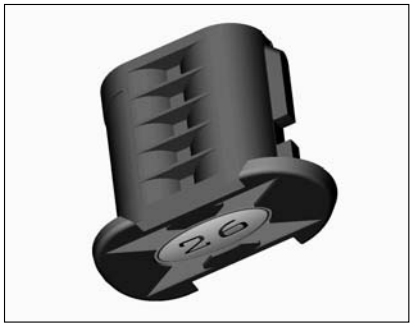
The Digital Pulse Controller (DPC) is an internal circuit including the Microprocessor of the X26 and various support hardware. When the X26 is fired, the DPC measures the time between each shaped pulse discharged from the weapon. The DPC then regulates the power throughput of the pulse generator to maintain a constant pulse rate.

In previous generation pulse energy weapons such as the M26, the pulse rate of the weapon would vary greatly depending on battery conditions. Particularly, in colder weather, the pulse rate could slow dramatically as battery performance decreased. The DPC in the X26 adjusts power consumption to compensate for changes in environmental conditions in order to maintain a constant pulse rate, and therefore consistent incapacitation performance, across a broad temperature range from -4 °F (-20 C) to +122°F (+50 C).

The DPC automatically delivers a 5 second burst for each pull of the trigger. The DPC uses a variable pulse rate for optimal performance. During the first 2 seconds of each burst, the DPC runs at 19 pulses per second for maximum takedown power. After 2 seconds, it slows slightly to 15 pulses per second for the remaining 3 seconds in each burst. This lower pulse rate is more than sufficient to keep the subject incapacitated, but it further enhances the medical safety of the weapon and extends battery life by 25%. This variable pulse rate is optimized for maximum takedown with maximum safety. If the user continues to hold down the trigger through the full 5 seconds, the pulse rate will stay on at 15 pulses per second until the user releases the trigger.

Digital Power Magazine

- **10-year shelf life**
- **Lithium energy cells**
- **Provides over 300 firings**
- **Digital memory (% life)**
- **DPM must be left in the weapon at all times to maintain system clock**



Instructor Note: The Lithium battery lasts longer on the shelf and performs better in colder temperatures than any alkaline or NiMH rechargeable battery.

The DPM will provide at least 300 5-second firing cycles. The longevity will depend on the number of firings in colder weather versus warm weather. The DPM will use more energy in colder weather to provide the consistent pulse rates than it does when in warmer temperatures.

The DPM stores in percent of life remaining digitally and can be removed and used in other X26s and still retain its remaining power.

CRITICAL POINT: The dataport on the X26 can be reset if the DPM is removed for over 24 hours or more. Always store with DPM to maintain dataport integrity.

X26: XDPM (eXtended DPM)

Accessory

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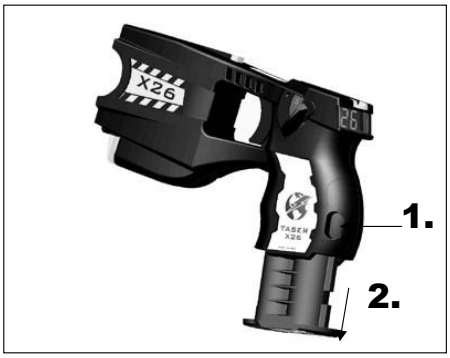
Instructor's Note: Some officers will find that adding the XDPM will improve the grip of large handed officers for firing and for applying drive stuns.

X26: DPM Replacement

- Replace DPM when % life < 20%
- Use for training until 1% remaining
- Dispose at 0%
  - Continued use may cause “brown-outs” that could cause microprocessor resets and potential data corruption

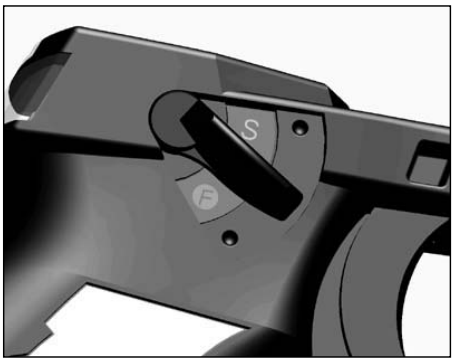


- Turn safety ON
- Remove Air Cartridge
- Depress DPM release
- Remove & replace DPM

When the DPM gets below 0%, the Lithium Energy Cells are going dead. At this point, the power level will drop below the minimum level at which the microprocessor will run. This is called a brown-out. It is similar to unplugging your desk top computer from the wall without shutting it down properly.

X26: Ambidextrous Safety

- **SAFETY ON**
  - **(Down)**
- **SAFETY OFF**
  - **(Up)**
  - **Activates CID and selected illumination**



Instructor Note: When the safety is down, the weapon is in safe mode and the weapon cannot fire. The X26 displays a green "S" for safe when in safe mode (the M26 has no marking). When the Safety is shifted up into the armed mode, the weapon is armed and will fire when the trigger is activated.

X26: When armed, the laser and LED illuminators turn on (depending on illumination status) and the Central Information Display shows the percentage of battery life for 5 seconds.

X26: Central Information Display (CID)

- 0-99% battery level
  - Safety up
- 5,4,3,2,1 countdown
  - Triggered
- Illumination status
  - Light selector button
- System diagnostics
  - When DPM Loaded
    1. Warranty expiration date: YR, MO & Day flash
    2. Current date & time: YR, MO, Day, 24 HR & MN flash
    3. Current Celsius internal temperature
    4. Software revision level

DRILL: Safe, Arm - Observe DPM Power Level

Arm, Trigger - Observe Countdown

The CID is a two digit display on the back of the X26. The CID communicates the following information:

0-99% DPM Power Level (Battery Indicator): When the safety is positioned upward to arm the weapon, the CID will display the percentage of DPM power remaining. This indication will last for 5 seconds. After 5 seconds, the CID will display a single illuminated bar to indicate the weapon remains armed.

Temperature: The internal temperature is recorded by the CID. It uses Celsius since only two number slots are available on the CID's LEDs.

Burst Time Countdown: When the X26 is triggered, it delivers a 5-second pulsed energy burst. The CID displays a countdown from 5 to 0 indicating how many seconds remain in the current burst. The burst can be stopped at any time by positioning the safety down to "safe" the weapon.

Illumination Status: See Next Slide

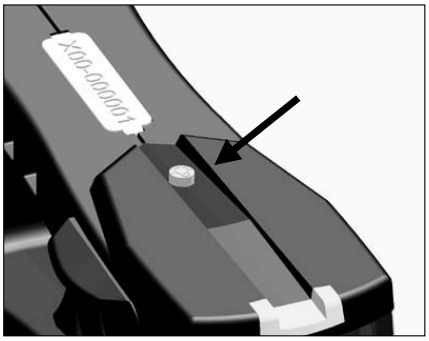
Warranty Status: See Slide After Next

Sleep Status: If the X26 is left in the armed position for more than 20 minutes, the system shuts down into a sleep mode and will require the user to rearm the X26. Normally, the CID displays the DPM power level for five seconds and then lights two LED lights at the lower right hand corner of each LED #. After 20m minutes, the X26 goes into sleep mode and deactivates all lighting systems while the CID screen goes completely blank. The unit will not fire if the trigger is pulled. This mode assumes the user probably forgot to put the weapon into safe mode, or that the safety was unintentionally shifted to the "armed" position. The blank screen status is designed to prevent the X26 from draining the DPM by shutting off the laser sight and lighting system. Further, the "sleep mode" prevents accidental discharges of the weapon by preventing the weapon from being armed for more than 20 minutes without user input.

To rearm the weapon from sleep status, simply shift the safety to the "safe" position, then back to the armed position as required.

X26: Illumination Selector

- "Safe" & unload Cartridge
- Press selector & hold for 1 second w/ fingernail or pen
- Press and release to toggle modes:
  - **LF**: **L**aser and **F**lashlight both illuminate
  - **LO**: **L**aser **O**nly will illuminate
  - **OF**: **O**nly **F**lashlight will illuminate
  - **OO**: (**O**ff/ **O**ff) neither laser nor light will illuminate



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DRILL: Unload Air Cartridge, safety "ON," operate illumination selector through modes.

This switch changes the illumination settings of the weapon. To change the illumination setting:

1. Place the safety in the downward, "safe" position, remove the Air Cartridge and aim the X26 in a safe area (such as toward the ground).

2. Press and hold the Illumination Selector for approximately 1 second until the CID display illuminates

3. Press and release the Illumination Selector to toggle through the four available settings until the setting you desire is designated on the CID. The Codes are listed below:

LL: Laser and Light both illuminate

LO: Laser Only will illuminate

OL: Only Light will illuminate

OO: Neither laser nor light will illuminate

The X26 will display the selected mode on the information display as well as activate the selected features for 5 seconds, then revert back to the safe mode.

X26: Warranty Status

- "Safe" & unload Cartridge
- Remove & reload DPM

Code sequence

- Warranty expiration
  - If warranty not activated, flashes 3,2,1, otherwise shows expiration
  - YY, MM, DD
- "--" Separator
- Current system time (**GMT**)
  - YY, MM, DD, HH, MM
- "--" Separator
- System temperature
  - -99 to + 99 Celsius
  - Flashing number is negative
- Software revision number

Warranty: 1-year from first trigger pull

Extended warranties available

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DRILL: Remove DPM for 5 seconds, reinstall and observe system diagnostic data on CID.

Warranty and General System Status

When the DPM is installed, the X26 will perform a system diagnostic and the CID will display the codes below indicating the warranty status of the unit. The X26 ships with a standard 1- year warranty. This warranty starts from the date the weapon is first activated with the trigger (the warranty can be extended by purchasing extended warranty DPM packs).

To check the warranty status at any given time, remove the DPM for five seconds, then reinstall. Once the DPM is installed, the codes below will be displayed:

- **Date of Warranty Expiration**

The unit will display the date of warranty expiration as YY (year) for 2 seconds followed by MM (month) of expiration.

Extended warranties are available for purchase, but extended warranties can be applied only before the expiration of the unit's existing warranty. See "Warranty" section for details.

After the warranty date, double bars (--) will show for 2 seconds as a separator before showing the current system date and time.

- **Current System Date and Time**

The current system date and time will be displayed as YY (Year), MM (Month), DD (Day), HH (Hour), MM (Minute). Each number displayed will last for 2 seconds.

After the System Time, Double Bars (--) Will Show for 2 seconds as a separator.

- **Current System Temperature**

The current internal temperature of the X26 measured inside the unit will be displayed in Celsius. If the temperature is below zero, the number will blink to indicate a negative number.

Dual Cartridge Holster Option

- Dual Cartridge Holster (DCH) mounts to eXoskeleton holster
- Holds 2 cartridges for immediate reloading

Instructor: Only if present as an option, hand out Dual Cartridge Holsters and have students mount them onto eXoskeleton Holster.

Dataport

Connection Kits Sold Separately

- X26 USB Dataport
  - Time, date, **duration, temp, battery status** of each firing (over 1,500)
  - Connection protected inside DPM slot
  - Auto time zone adjustment
  - Encrypted data files
  - Date range downloads
  - USB plug & play

X26 Dataport: The X26 has a dataport function that stores the time and date when it was fired. This data protects officers from claims of excessive use of force by providing complete and accurate documentation of the time and date for each firing. The dataport also provides law enforcement with a powerful management tool to track usage patterns and prevent misuse.

The X26 improves upon the M26 dataport system:

- **USB Plug and Play:** The X26 interface uses a USB (Universal Serial Bus) "plug and play" adapter (sold separately) to connect to any Windows® 98, Windows® 2000, or Windows® XP computer. Whereas the M26 used a serial interface that required users to deal with infamous "Com Port" error and other issues, the simplicity of USB makes using the dataport a much easier, faster process.

- **Interior data connection:** The dataport on the M26 used an Ethernet style connector on the outside of the weapon. This required a separate rubber plug to keep dirt and moisture from penetrating into the weapon. On the X26, the dataport interface is inside the DPM compartment and can only be accessed by removing the DPM. This reduces the risk of particulate matter and moister penetrating to the operating circuits of the X26.

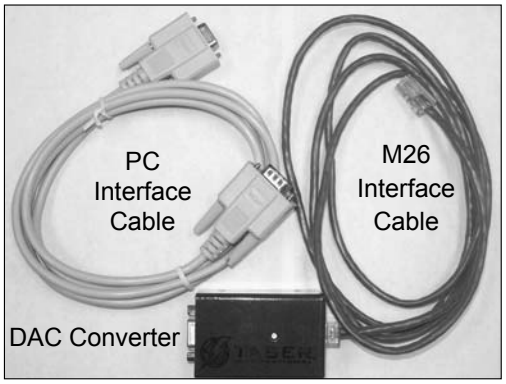
- **Automatic Daylight Savings and Time Zone Calculations:** The X26 is also programmed GMT at all times. However, the conversion to local time, including adjustments to daylight savings time, are all computed in the PC based software. There is no need to program the weapon to local time or to reprogram the weapon to day light savings time. Each weapon is programmed to GMT at the factory, and should only need to be re-programmed in the field in the event of a malfunction or loss of power for an extended period of time. The X26 data download reports show the time and date in both GMT and local time. If the X26 time is ever lost or reprogrammed, the firing log will show the time change information in the fire log data.

- **Secure .x26 data files:** The data downloads are saved in encrypted data files that are secure from tampering. This preserves the admissibility of X26 dataport download reports for court admissibility. The X26 will store the last 1,500+ most recent firings in its memory.

- **Duration of discharge and temperature:** The X26 dataport stores not only the time and date of each discharge, but also the duration of each discharge and the system internal temperature at the time of discharge. If the trigger is pressed again and held down during the first 5-second discharge, this will be counted as one firing period. One firing period can be up to 127 seconds long. If the first firing is allowed to stop before the trigger is pressed again, the log will show two separate firings.

Dataport Download Kits

M26



X26

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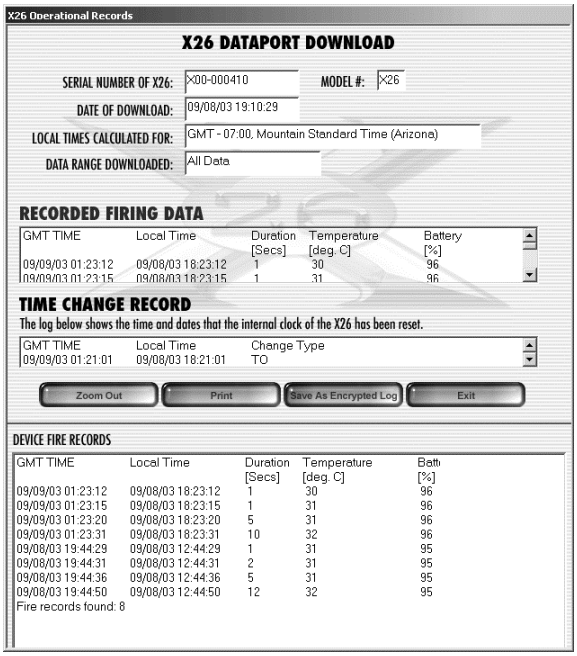
M26: Photo of the actual cables for the dataport accessory. The tan cord connects to a computer 910 serial port. The blue cord connects to the dataport of the M26. The blue box is the RS234 Digital Analog Converter (DAC) interface converting digital information to analog information. It also includes a software package on a 3.5" floppy disc.

X26: USB Connection is a one piece, modified DPM that installs in the X26 and connects directly to the USB port on a PC. The software is supplied on CD.

Download: X26



X26: Important Tips

- **System date & time is <u>always</u> GMT**
  - When you insert DPM for system diagnostics, it will display GMT time and date
  - What is the difference between your time zone and GMT?
- **System "Sleeps" after 20 minutes armed**
  - Avoids accidental battery depletion and AD
  - Cycle safety to reactivate after 20 minutes as CID screen will go blank AND WILL NOT FIRE. Re-arm required by flipping safety down and then flipping back up.
- **<u>X26 MUST BE STORED WITH DPM INSTALLED</u>**
  - Clock will run out of power after 40 hours without DPM
  - Data integrity is not effected, but clock needs to be reset

It is important to remember that the X26 always tracks GMT standard time. When you download records, the PC software will convert the time to local time for you as well. However, when you load the DPM, the X26 will display the current system time in GMT. This can be confusion, because the date may differ as well.

For example, when it is 5:00pm in Arizona on August 12, GMT time is 1:00am on August 13. Make sure to tell students what the difference is between local time and GMT.

For more info on Greenwich Mean Time see: http://greenwichmeantime.com/

Also, the original owner's manual of the X26 described that the X26 would display "RA" on the display when the system went to sleep. This function was eliminated in order to save battery drain (displaying "RA" unnecessarily consumes battery life). Hence, when the weapon goes to sleep after 20 minutes in the armed mode, it does not illuminate the display.

Finally, it is critically important to store the DPM power supply inside the X26. If the DPM is removed for more than 40 hours, the internal clock runs out of power and will reset. You would then need to reset the X26 time using a USB dataport kit. The data inside the X26 will remain intact regardless.

Field Application

TASER Increases Officer Safety

300+ Agencies Deploy to Every Officer

The point of this slide is to emphasize that the lethal weapon is your life insurance - it is there in case you need it. Most officers never have to deploy lethal force throughout their entire career (according to the National Law Enforcement Memorial Foundation, the average street cop in New York would have to walk the beat for over 600 years before he would have to use lethal force). In contrast, officers have to use less-lethal force everyday (from verbal to hands on to TASERs weapons). Effective less-lethal weapons like the TASER conducted energy weapons can help prevent situations from escalating to lethal force levels -- just like health insurance can help prevent the need to use your life insurance.

Field Results

The TASER has the greatest impact on officer safety when deployed with patrol level first responding officers

INSTRUCTOR'S NOTE: *Field results show that when the TASER technology is on scene with first responders, the ability to have the M26 and X26 immediately available is having a large impact on the success rate of reducing escalation of force as a result of immediate access to TASER weapons. More departments are moving away from having the TASER technology as a "boutique weapon" for supervisors only. This is a dramatic "sea change" in law enforcement especially in light of the concept of deploying M26s and X26 to either all patrol calls but especially to all patrol officers.*

First Responder Tool

(Click on image above to start video. Click once to pause.)

Video of deployment of multiple electrical discharges to subdue subject

INSTRUCTOR'S NOTE: *This video, from the Yuma County, AZ Sheriff's, takes place at a domestic disturbance. The wife is actually filming as the intoxicated husband attempts to assault the deputy, even taunting the deputy to shoot him with his firearm. After the subject taunts the officer to "draw his gun and shoot me," the suspect states "then I'll shoot you" and attempts to return inside the house, presumably to retrieve a weapon. The deputy fires the ADVANCED TASER to safely subdue the subject averting a potential lethal force confrontation. Note how the deputy leaves the wires attached to the subject, allowing him to re-energize the cartridge when the subject attempts to get up to resume violent behavior. By using verbal commands and re-activating the TASER, the deputy is able to maintain control for 30 minutes until backup arrives.*

This is an example where the situation very likely would have escalated to lethal force without the TASER and that as long as the probes and the wires remain intact to the TASER weapon. In this case, the deputy was able to control the subject for 30 minutes while awaiting backup from a very long distance.

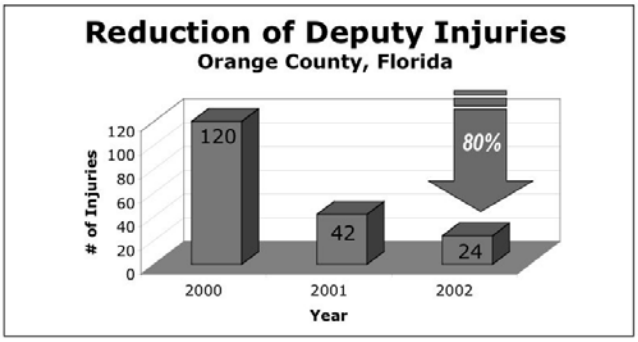
The TASER is not a substitute for lethal force

- However, many situations beginning as standoffs have the potential to escalate to lethal force. Early, aggressive use of less-lethal weapons like the TASER can prevent many of these situations from escalating to deadly force levels.

Orange County FL Sheriff's Success

(Click on image above to start video. Click once to pause.)

REDUCE OFFICER AND SUSPECT INJURIES BY STOPPING THREATS FROM A SAFE DISTANCE



Example: Orange County, FL Sheriff's Dept
Injuries to Deputies Dropped by 80% After Deploying the M26*

*Source: "TASER Works, so its use increases," Ripple, Amy C., Orlando Sentinel, July 29, 2002

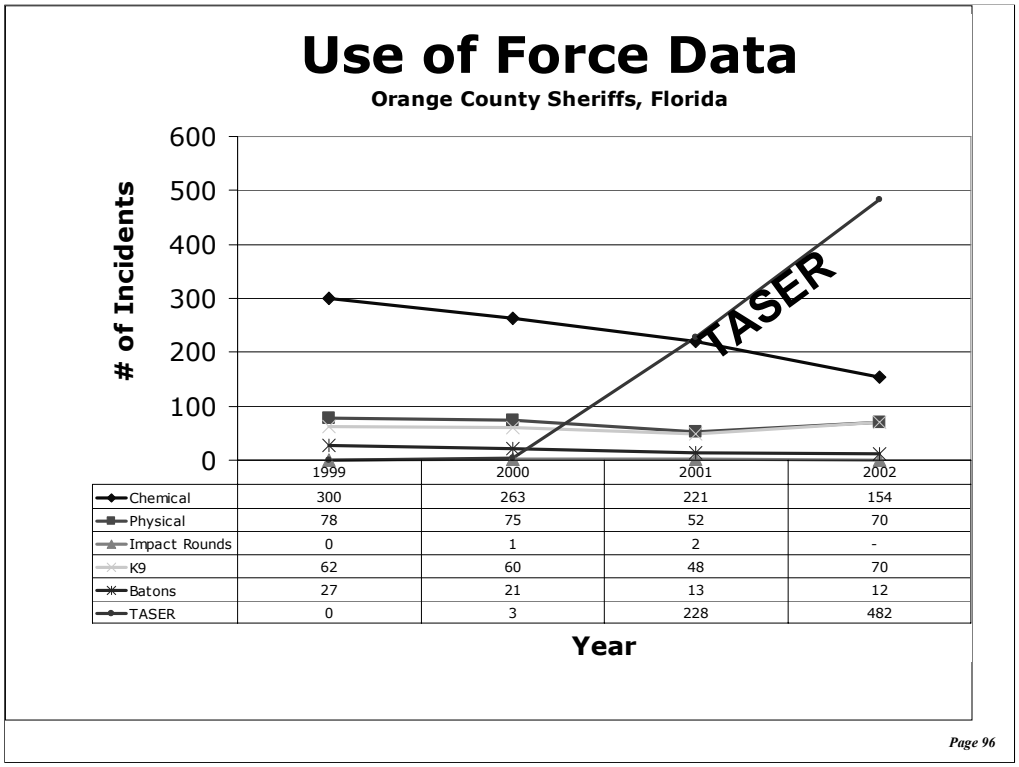
The Orange County Sheriffs Office deployed the M26 starting in 2001. By 2002, Deputy Injuries had fallen by 80%.

In fact, the number of force related injuries increased during this time period by 72% from 410 force incidents in 1999 to an annual rate of 708 force incidents in 2002. If you look at the injury rate, it actually fell by 88%.

1999: 120 injuries / 410 force incidents = 0.29 injuries per force incident

2002: 24 injuries / 708 force incidents = 0.03 injuries per force incident

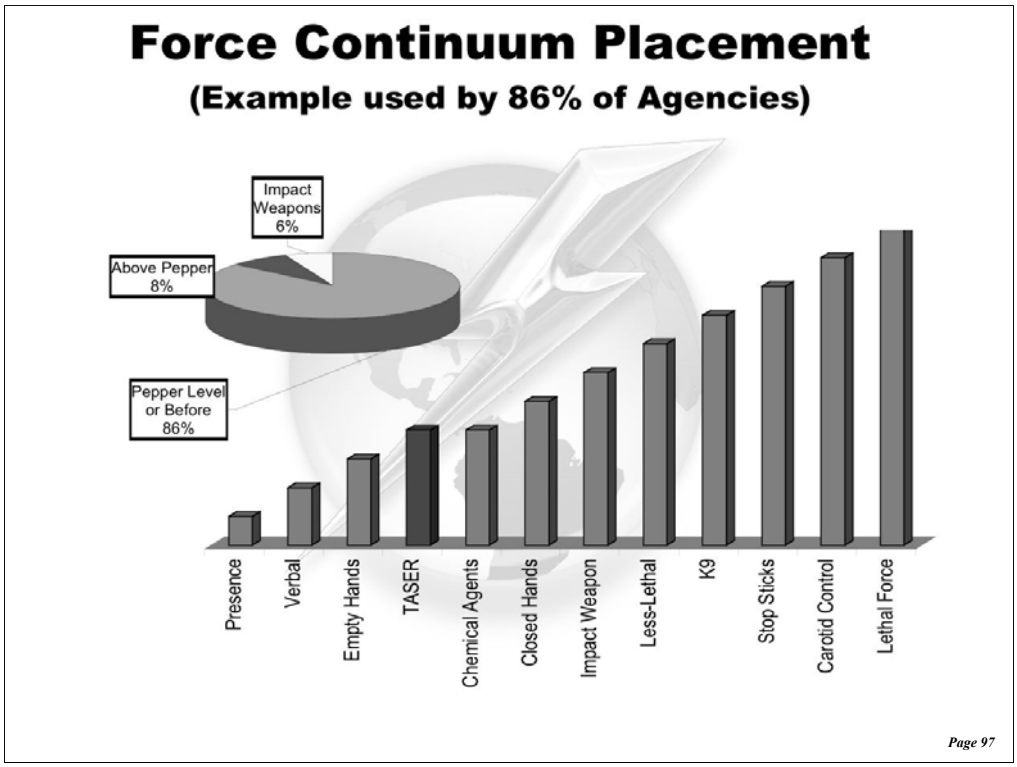
(0.29 - 0.03) / 0.29 = 88% reduction in injury rate.



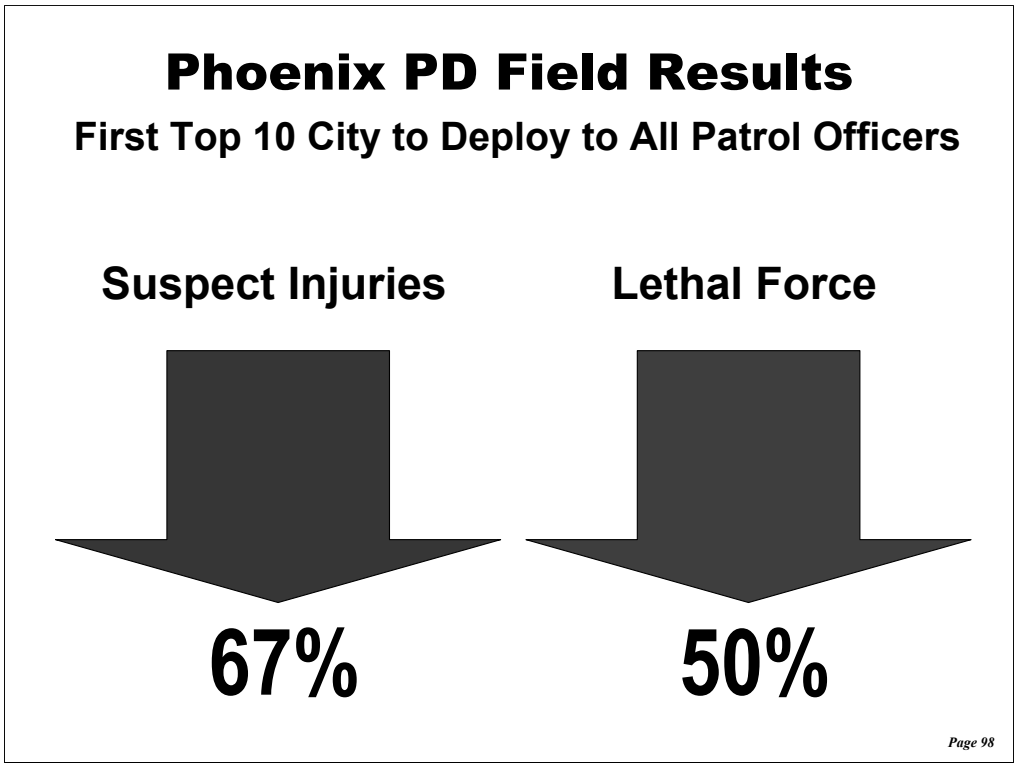
	1999	2000	2001	2002
Chemical	300	263	221	154
Physical	78	75	52	70
Impact Rounds	0	1	2	-
K9	62	60	48	70
Batons	27	21	13	12
TASER	0	3	228	482

INSTRUCTOR'S NOTE: Overall the M26 now represents a 68% use of force at OCSO and that all other levels of use of force have dropped dramatically.

The 2002 numbers are annualized rates from the data published for January through May, 2002.



- Placing TASER technology (Conductive Energy Weapons) on the use of force continuum is the responsibility of the police department management. The recommendations here are to provide information to assist departments in developing a sound policy.
- Highlight placement of the ADVANCED TASER on Continuum and note that 83% of the agencies deploying TASER have placed the it before or equal to aerosol aerosol chemical agents. Explain why it may be placed on par with aerosol aerosol chemical agents (fewer injuries and no aftereffects).



USE OF FORCE STUDY, PHOENIX PD

During the month of January 2002 the Phoenix Police Department implemented the M26 Advanced Taser with Patrol Officers. One hundred forty-nine Tasers were slotted to Patrol and were issued over the next two months as officers were certified to carry them during a 5-hour operator course.

In an attempt to track the use of the Taser and its effectiveness on the street, I began a study of its uses by pulling up use-of-force reports for the period of 6 months prior to the Taser being used in Patrol and 6 months after. The time frame used was August 2001 through August 2002.

During this time frame there were eight hundred ninety-nine reported incidents. I found that during the 6 months prior to the Taser being issued to patrol officers, eighty two percent (82%) of the time a use of force incident was reported, the suspect was injured. This figure dropped after the Taser was implemented. Twenty seven percent (27%) of the time, the suspect was injured. A fifty five percent (55%) drop in suspect injuries *(ed. or 67% drop in injury rate)*.

For the same time period the number of officer injuries also dropped, from 9.5% of the time the officer was injured to only 7% of the time, after the Taser was issued. Although not as significant, a decrease in officer injuries, none the less.

The criteria used for both studies were injuries ranging from lacerations to gunshot wounds. Non visible injuries, abrasions and scratches were not considered for this study.

With this information in mind, I request serious consideration be given to arming all of Patrol with this valuable, less lethal tool.

PHOENIX PD BECAME THE FIRST TOP 10 CITY TO FULL DEPLOY IN DEC. 2003.

TASER Field Results

	Reported	Estimated
Total Incidents	**3,400**	**17,000**
Lives Saved	**348**	**1,740**

Success Rate: 94.3%

Data collected at www.TASER.com using online use of force report.

* Assumes only 1 in 5 incidents reported. (Most large agencies do not report and this is an extremely conservative number.)

Success Rate By Distance

Distance	Success Rate*	% of Shots Taken
1 - 3 Ft:	94%	38%
3 - 7 Ft:	94%	32%
7 - 11 Ft:	93%	15%
11 - 15 Ft:	88%	11%
15 - 21 Ft:	86%	4%

* Success is defined as no further escalation of force required to subdue a subject. Note: The vast majority of overall shots taken are at: 3-7 feet (38%) followed by 7-11 (32%). The advantage of distance and cover should be evaluated.
Failures with shots taken from 11-21 ft tend to have a higher percentage of one probe and two probe misses.

Data as of 10/03 for M26 only

Note: Every success rate listed is lower than the average success rate of 94.3%. We believe this is due to the fact that officers submitting unsuccessful uses are more likely to fill in the details for to communicate the incident for failure analysis. Hence, those uses where the distances was filled-in were skewed toward the unsuccessful uses.

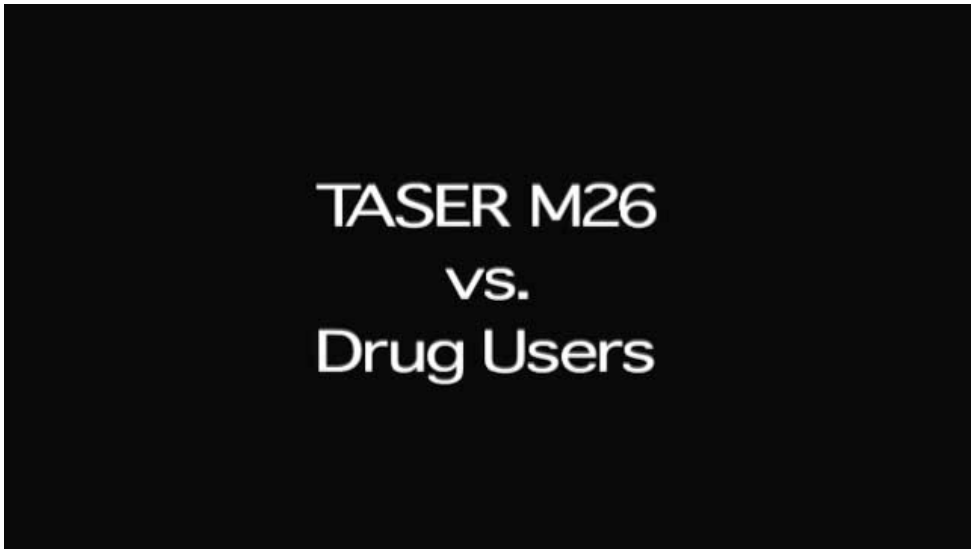
Also, there appears to be a downward bias in success beyond 15 feet. We believe this is due to misses, and subjects running or falling away from officers causing the wires to break. Hence, officers need to be careful to keep slack in the wires at extended ranges.

Success By Influence

Influence	Success Rate
Alcohol	94%
EDP	93%
Cocaine	92%
Meth	95%
PCP	96%
Misc. Drugs	90%

- The TASER is safe & effective for suspects under the influence of drugs or alcohol

Drug Users



(Click on image above to start video. Click once to pause.)

INSTRUCTOR'S NOTE: *Video of naked man on PCP who is pepper sprayed with no effect. The M26 is deployed and successfully subdues this dangerous individual. The first 5-second cycle drops the subject on his back. The deputies use a second 5-second cycle to gain compliance by the subject to roll onto his stomach where he is cuffed without further incident. Excellent, real work example of the effectiveness of the ADVANCED TASER against subjects under the influence of heavy narcotics.*

INSTRUCTOR'S NOTE: *Esquimalt Police SWAT (BC, Canada) encounter a subject on methadone (synthetic heroin substitute) with two knives on a rooftop who took apart a chimney with his bare hands and threw them at officers. SWAT members approached the house to distract the suspect and retreated while other SWAT members got on the roof. The man begins to pass out and SWAT team members approach the subject with lethal cover, remove one of the knives and deploy the M26. Have the students watch the 5-second cycle. The officers make sure the subject is incapacitated and deliver a second 5-second cycle to flip the man onto his stomach into an arresting position. The knives are kicked away from the subject and the subject recovers without further incident.*

Analysis of Field Reports
Types of Incidents

Incident Type	% Incidents
• Resisting Arrest	28%
• Violent	28%
• Suicidal	15%
• Civil Disturbance	13%
• Warrant Service	5%
• Officer Assault	5%
• Barricaded	5%

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

Note: There is more than 100% as each event reported may involve one or more types of incidents.

Suicidal Girl
Westminster, CO PD

- 13-year-old girl
- Barricaded in bathroom
- 2 butcher knives
- Charges officers with knives raised over head
- M26 deployed with immediate effect
- “All officers on scene agree that she would be dead today without the M26”

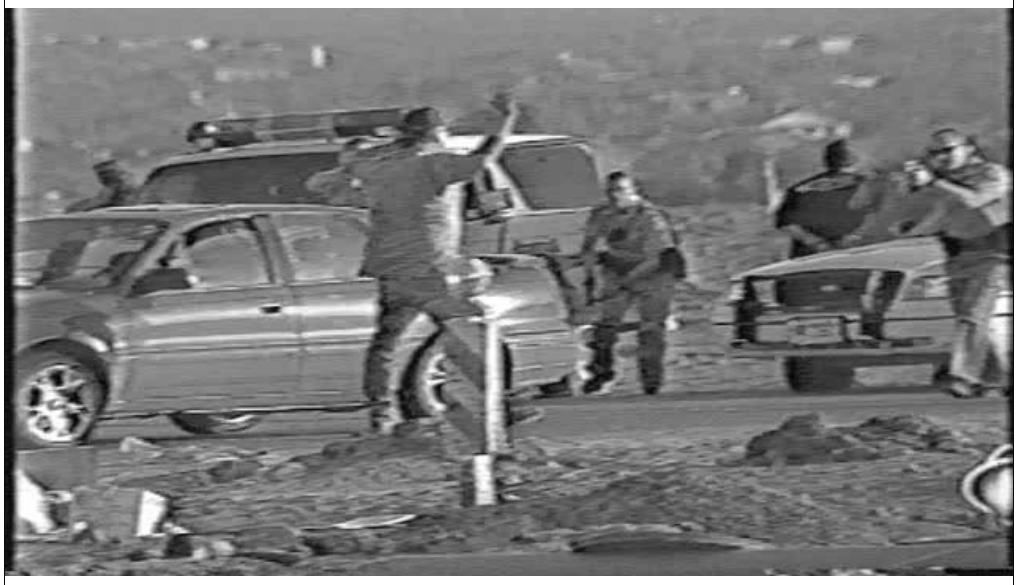
Prevented Suicides

(Click on image above to start video. Click once to pause.)

INSTRUCTOR'S NOTE: *In the Los Angeles instance, a suicidal man was threatening to jump off a bridge in Los Angeles. Los Angeles County Sheriff's deputies lure him away from the edge to get a bottle or water. Once he is away from the edge, they deploy the ADVANCED TASER. Note how he does NOT immediately fall to the ground. He is stunned, and frozen in place. However, the deputies use physical force in conjunction with the TASER to knock him down and bring him safely under control. This is a great example of planning multiple uses of force, and not hesitating if the TASER does not immediately knock the subject down. Use the TASER as part of an overall plan of action to ensure success.*

The deputies involved were given the Los Angeles Sheriff's Award for Bravery. Also because of this incident, TASER International, Inc. was awarded the Harry Benton Green Civilian Leadership Award.

Emotionally Disturbed Persons



(Click on image above to start video. Click once to pause.)

INSTRUCTOR'S NOTE: TASER Technology is becoming widely accepted as the premier tool for Crisis Intervention Teams based upon its non-injurious effect upon subjects.

Field Success by Level of Use

Total number of reports:	**3,326**
Percent Successful:	**94%**

	Success Rate
Darts Fired at Subject:	**92%**
Laser Only:	**99%**
Spark Demo	**94%**
Drive Stun Application	**94%**

Data as of 10/03

Duration of Field Applications

1 seconds	.88%
2 seconds	3%
3 seconds	3%
4 seconds	2%
5 seconds	59%
More than 1 cycle	32%
Total Reported	100%

Data as of 10/03

INSTRUCTOR'S NOTE: *The students should anticipate using a second and third cycle to subdue suspects. Although the data shows here that some officers were shutting off the unit before completion of the first five second cycle, remind the students that they should let the ADVANCED TASER run the full 5-second cycle in order to reduce the probability of a field failure. The purpose of this slide is to show that most officers are following training and applying the full discharge – and that almost half of the deployments required a second discharge to obtain compliance. 1st cycle changes the behavior and the subsequent cycles allow for apprehension in most cases.*

What Can Go Wrong

- **Could ignite gas fumes, meth labs, some aerosol chemical agents or other flammable or combustible environment**

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(Click on image above to start video. Click once to pause.)

What Can Go Wrong?

- Clothing over 2” thick or clothing that falls away from the body like an open jacket
- Single Dart Hit and missed shots
- Low Batteries (cold or undercharged)
- Operator Error
- Low Nerve / Muscle Mass
- Cartridge Failure / Weapon Malfunction
- Suspect’s reaction / officer anticipation
  - Suspect “frozen” or propped up: appears unaffected
- Wires break
- A battery put in wrong position
- Aiming angle - suspect’s position
- Zipper shot
- Doors closing on wires when suspects are behind door

INSTRUCTOR’S NOTE: One area of interest is that a number of uses have failed when warrants have been served on suspects. When the suspect has answered the door, the suspect has been shot with the M26 but slams the door shut at the same time. There have been multiple times when the door has broken these wires.

If both probes are shot near a zipper, the electrical current may use the conductive zipper for its energy path instead of the human tissue. This is very rare but should be noted.

M26 Failure Causes

Failure Cause	% of Failures
Clothing	20%
Unknown	14%
Low Nerve/Muscle	12%
Miss	12%
Single Dart	10%
Top 5 issues represent 68% of failures	
Cartridge Failure	4%
Low Battery	4%
Operator Error	3%
Weapon Problem	3%
All Other Misc.	11%

Data as of 10/03

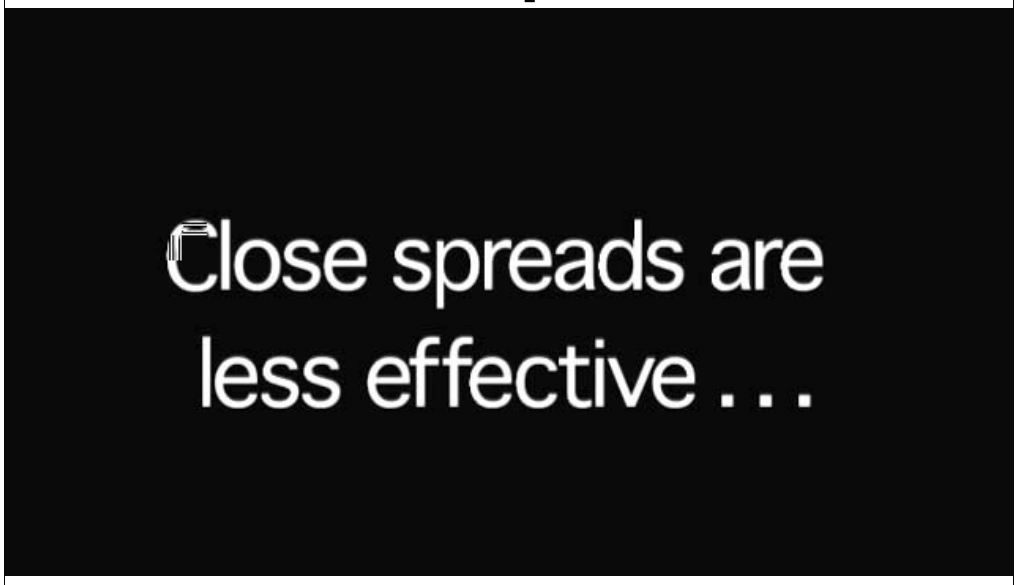
Note that the total percentage of failures may be is higher than the percentage of unsuccessful uses. This is because there may be multiple causes for a failure (i.e. low batteries and low muscle mass hit). Hence there is some double counting.

Contingencies

(Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

Probe Spreads



(Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

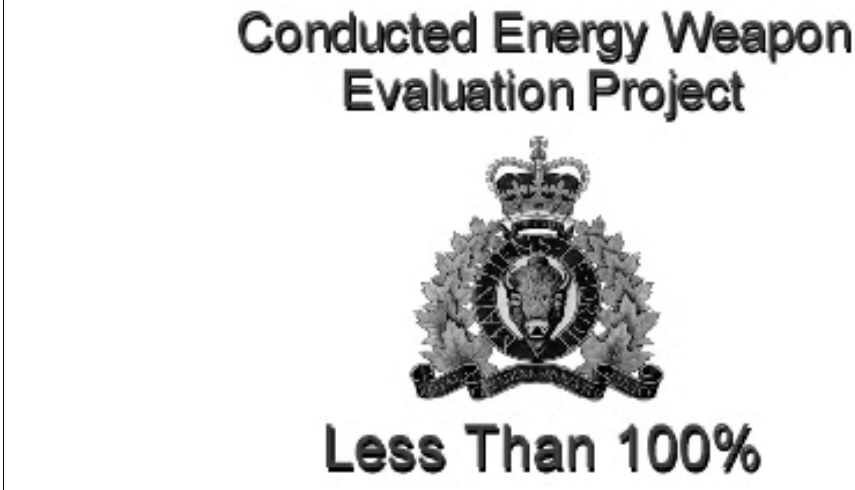
“Silence is Golden”

- The TASER electrical current is relatively quiet in actual human use
- Practice targets are loud since the energy is arcing in the air
- If electrical current is loud during field hit and the subject is not reacting, the energy is most likely shorting out and may not be effective -- reload and fire second shot at alternate area

The TASER is loud when shot at metallic targets because the electrical current is arcing in the air

When probes make contact with skin the electric current is relatively quiet because the probe is directly discharging the energy into the body

Loud Arc = Bad Connection



-- (Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

Window of Opportunity

- Could your arrest team cuff this subject?
- Will the officers be affected?
- Is the TASER cycle quiet?

(Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures.
Make sure to follow demonstration safety procedures.

The volunteer is shot with two probes and experiences muscle lockup. He is fully incapacitated. This is an excellent video to remind the students of how the unit runs quietly as opposed to shots on the metallic TASER target. Note the recovery speed.

Failure Analysis

(Click on image above to start video. Click once to pause.)

Instructor's Note: This video demonstrates lethal cover along with an ADVANCED TASER M26 shot fired unsuccessfully at a male subject trying to commit "suicide by cop."

The first shot makes one probe contact, but the other probe appears to have missed. Note that the ADVANCED TASER's 5-second cycle is loud. The subject then pulls the one probe out of his chest and runs away. While the subject runs away the officer takes the subject down with a drive stun follow-up.

Longmont Police Dept, CO SWAT approached a very violent subject who had a cell phone in his hand. The subject is shot by the M26. The students should closely watch the reaction of the subject shot. At first, it appears to have little effect. Note, a SWAT officer touches him during the cycle and he immediately falls to the ground. The video demonstrates that some people lock up or appear to be fighting the effects of the M26. Instead, the officers on scene commented that the subject was actually screaming and was completely incapacitated.

Case Law

- **Mateyko v. Felix** (1997, CA), awarded $19,680 for inadequate training - Tasertron case
- **Alford et al v. Osei-Kwasi et al** ('92, GA). Alford sued jail staff for deploying the TASER on her while pregnant. Case was dismissed in appeals, noting "Osei-Kwasi stated he used the TASER to minimize possible injuries to all concerned, including Alford and her unborn child." - Tasertron case
- **Michenfelder v. Sumner et al** ('88, NV). Michenfelder sued for violation of his rights because the TASER was used to enforce strip searches (force presence only, not fired at him). Court found the TASER was used to enforce compliance with a search that had a reasonable security purpose, not as punishment. The legitimate intended result of a shooting is incapacitation of a dangerous person, not the infliction of pain. - Tasertron case
- **Hinton v. City of Elwood** ('93, KS). Fed appeals court holds that use of stun gun to subdue man who was resisting arrest by kicking and biting was an appropriate use of force.
- **Russo v. Cincinnati, 953 F.2d 1036 (6th Cir. 1992)** The court held that the defendant police officers were entitled to qualified immunity as to the claim that they used unreasonable force in firing multiple times with a non-lethal TASER gun upon a mentally disturbed suspect wielding two knives. The court concluded that the use of the non-lethal TASER to subdue a potentially homicidal individual did not constitute excessive force and did not transgress clearly established law. The court emphasized that the defendant police officer "deployed the TASER in an effort to obviate the need for lethal force."
- **Ewolski v. City of Brunswick, 287 F.3d 492 (6th Cir. 2003)** The court affirmed the decision in **Russo v. Concinnati**, cited above, and held that the defendant police officer's use of TASER non-lethal force to subdue a potentially homicidal individual did not transgress clearly established law. The court further held that the use of TASER non-lethal force against an armed and volatile suspect does not constitute excessive force and concluded that the defendant police officers are entitled to qualified immunity on the Plaintiff's excessive use of force claim. The court further held that in cases in which officers must choose among alternative use of force options, a plaintiff must show that the police "knowingly and unreasonably" opted for a course of conduct that entailed a substantially greater total risk than the available alternatives. This case is also very significant in that the court noted that a state official's decision to initiate a rescue with sub-optimal equipment "sounds in negligence". The implication of this dicta is that municipalities must provide their police officers with optimal equipment to avoid a charge of negligence and potential liability.

See "TASER Memorandum of Law.doc" in the "documents/court cases" on the TASER Version 10.1 CD-ROM for more details.

INSTRUCTOR'S NOTE: *Case law for TASER less-lethal weapons manufactured by "Tasertron" later known as "TASER Technologies." TASER Technologies' assets were purchased by TASER International, Inc. in 2003 and no longer exists. These case can be applicable under Common Law.*

Mateyko v. Felix (1997, CA) awarded $19,680 for inadequate training. A small amount of money to a man name Mateyko for emotional distress caused during a traffic stop and the subsequent use of a Tasertron TASER. In this case the lower court's jury directed 96% of the fault upon the driver Mateyko and 4% against the city for negligent infliction of emotional distress amounting to a total of $19,680 out of $490,000. The case touches upon issues of training and mentions that the officers didn't know the voltage and the precise effects upon a human body of a TASER. This case, in my opinion, only reinforces that a city deploying a TASER weapon must provide adequate training. It does not establish that 3-4 hours of training is inadequate as some legal summaries have incorrectly cited on their web pages. A city's training must be adequate. Inadequate training can form the basis for municipal liability "only where the failure to train amounts to deliberate indifference to the rights of person with whom the police come into contact." In other words, Oxnard must provide adequate training in a nutshell (and when they take the stand, any trained officer should know the M26 is 50,000 Volts and that the M26 overrides the central nervous system through the electrical output of the 26-Watts). Using the TASER Int'l PowerPoint training when conducting training should cover these training areas in totality.

ALFORD et al. vs. OSEI-KWASI et al (1992, GA). Female inmate Alford sued DeKalb County Deputy Sheriff for deploying the TASER on her while pregnant. However, the appellate court granted summary judgement in favor of the defendants, noting that "Osei-Kwasi (the corrections officer) stated he used the TASER to minimize possible injuries to all concerned, including Alford and her unborn child." Case ruling is available on the CD-ROM in the legal section from the main menu.

Michenfelder vs. Sumner et al (1988, NV). Michenfelder sued for violation of his rights because the Tasertron TASER was used to enforce strip searches (force presence only, not fired at him). Court found the TASER was used to enforce compliance with a search that had a reasonable security purpose, not as punishment. The legitimate intended result of a shooting is incapacitation of a dangerous person, not the infliction of pain.

Hinton v. City of Elwood, (1993, KS) Federal appeals court holds that use of stun gun to subdue man who was resisting arrest by kicking and biting was an appropriate use of force.

In Custody Deaths

- No deaths have ever been attributed to the use of TASER technology
- The technology has been cleared in all deaths when ME reports have been issued. (Some are pending as they are recent and can take months.)
  - Majority of deaths have been caused by overdose (mostly by cocaine)
  - Most occurred during transport or at hospital
  - All involved extremely erratic and bizarre behavior
  - None have occurred during actual M26 applications
  - Electricity does not linger in the body
- 18,000 fatal drug overdoses occur yearly in the US
- 682,000 attend ER for major substance abuse
  - Some of these subjects will be hit by the M/X26

Instructor Notes: The ADVANCED TASER has never been the direct cause of any death. The deaths that have occurred over the years typically involved subjects undergoing overdose in which pain compliance tools and physical force have been ineffective. TASER Int'l anticipates more in-custody deaths given the significantly large deployments of TASER conducted energy weapons to first responders and to the fact that the TASER is so effective upon suspects who aren't pain compliant. In addition, with over 150 law enforcement agencies purchasing new TASER less-lethal devices, the chances of encounters suspects undergoing overdoses will surely increase.

Some of the erratic behavior ranges from overheating and being naked in extremely cold weather, biting a deputy's ear off in a fight, breaking Hobble restraints while in custody, nonsensical language, running amok, fighting family members, extreme self-mutilation, etc. Often times the suspects are exhibiting several signs of excited delirium.

682,000 people went go to the emergency room for major narcotics and / or alcohol abuse in 2002 according to Drug Abuse Warning Network (DAWN).

In custody deaths are an unfortunate fact of life. Be prepared for them and watch for the danger signs.

In Custody Death Checklist

- Get as much info as possible from the actual operators regarding
  - **TIME BETWEEN TASER AND DEATH**. Establishing a time of death is critical
  - Circumstances regarding arrest
  - Distance fired, probe spread, location and duration of cycles
  - TASER effects (any change in behavior?)
  - Subject's influence (drugs, alcohol, EDP)
  - Any other use of force used?
  - Medical Examiner's contact info
  - Don't overreact. Take time to analyze the situation and the potential causes of death prior to drawing any conclusions.
- Prepare media statement and provide media with as much info about TASER less-lethal weapons

In Custody Death Checklist

- Provide media the following contact info:
  - www.TASER.com
  - Steve Tuttle, TASER International's Director of Gov't Affairs at 800-978-2737 x 2006 & Steve@TASER.com
- Recommend PIO attend M/X26 training to understand technology. PIO should have a crisis plan to handle an in-custody death and should remind media:
  - "Electricity does not linger in the body"
  - "ME and toxicology reports are critical to the case as TASER technology has never been the cause of death in its history"
  - "The electrical output is several magnitudes less than that of a cardiac defibrillator and even these won't damage cardiac tissue even in the presence of strong narcotics"
  - "Defibrillators are at 300 Joules per pulse vs. 1.76 Joules per pulse of the ADVANCED TASER M26"
- Dr. Robert Stratbucker is available as a consultant/court recognized expert if needed

In Custody Death Warning Signs

- Should one or more of the following behaviors manifest, the suspect may require immediate medical assistance due to pre-existing conditions, possible overdose, cocaine psychosis, excited delirium, etc.
  - Bizarre or violent behavior
  - Signs of overheating such as a naked person in a public or cold place
  - Slurring or slowness of speech
  - Self-mutilation
  - Disturbances in breathing patterns or loss of consciousness

Instruct your officers to watch for these danger signs. If a suspect exhibits any of these signs, get them to medical attention as quickly as possible as these people are at elevated risk for an in-custody death.

Liability & Insurance

- In-custody death and use of force litigation are an unfortunate facet of law enforcement
- TASER International's liability exposure is that of a manufacturer: liabilities related to manufacturing defects in the weapon only
- Each law enforcement agency is expert in and responsible for their own use of force, deployment and post deployment policies and procedures
- Liability exposure related to use of force, policy, training and force related injuries / deaths are the responsibility of each law enforcement agency
- TASER International's terms and conditions include release and indemnification for liability other than weapon defects

Frivolous litigation is an unfortunate fact in today's society. Historically, TASER International has been brought into use of force litigation that was not related to the normal manufacturer's responsibilities. This has created a situation that would not allow TASER International to be economically viable in the future if we did not take action to clearly define the apportionment of liability exposure. As of 12/1/2003, TASER International supplied less-lethal weapons to over 3,500 agencies. Further, the TASER conducted energy weapon has become the primary use of force option in many of these agencies (68% of all use of force in at least one agency). It is clear that the TASER energy weapon is used as the primary force option against persons who are predisposed to in-custody injuries or death, particularly those persons who are exhibiting bizarre, violent behavior resulting from an overdose of illicit narcotics. It is also clear that the TASER energy weapon has been proven to be medically safe. Accordingly, it is possible that TASER International could have been brought in as a defendant in the majority of use-of-force and in-custody-death suits for over 3,500 agencies, employing 200,000 officers when there is no basis for liability. TASER International has approximately 100 employees -- the size of a relatively small law enforcement agency. If TASER International were exposed to the potential force related liability of 3,500 agencies, it could be quickly driven out of business by legal defense costs alone. Accordingly, in order to ensure TASER's economic viability, we have added a a clause to our terms and conditions wherein the end user agencies agrees to indemnify TASER International from force-related liability EXCEPT where there is a defect in the weapon causing it to operate out of specification AND the defect was the proximate cause of the alleged injury or death.

Effects on Animals

- The X/M26 TASER weapons are an effective option for dealing with aggressive animals and has generally been successful (95% success in 43 reported incidents as of 10/03)
- Note: the animals hit thus far have been incapacitated/stunned but recovered instantly. The vast majority of the animals quickly left the scene and broke the wires.
- If the dogs are stunned, animal control should stand by to put dog collar on stunned dogs

Typically these animals have been pitbulls and larger animals. However, this list also includes cow, deer and even a moose in the Yukon.

Actual Animal Use

(Click on image above to start video. Click once to pause.)

CRITICAL: This video is not for retransmission for any other purpose than for training of law enforcement.

This incident could have turned fatal for the dog and given the large number of citizens, press and law enforcement officers present, this incident was a highly successful use without resorting to lethal force.

MX Animal TASER

- 7x the current of the human TASERs
- Not certified safe for human use!

(Click on image above to start video. Click once to pause.)

The fact that the MX Animal TASER is not certified for human use is extremely important. It's use on a human being cannot be assured to be safe. This is not an idle warning, **do not use on humans unless lethal force is justified.**

Examples of Tactics & Field Uses

Each agency must determine its own policies and procedures covering use of force, deployment, tactics, and post deployment practices since they are expert in this area. The following examples and considerations are only provided to assist each agency in establishing these policies and procedures.

The Decision to Deploy

Please Refer to Department SOP for Deployment Policies and Procedures

INSTRUCTOR'S NOTE: *The main point to realize when talking about the actual deployment and use of the TASER is that it is not a substitute for common sense and good judgment. However, it can be an excellent tool to augment other options already in place in your use of force continuum. The TASER is not a cure all for all violent offenders nor should it be used in all circumstances.*

It is absolutely imperative to understand that deployment of the M26 or X26 must be backed up with the availability of lethal force when practicable. The TASER is not a substitute for lethal force. It is an alternative to other less-lethal applications of force. It should be considered as an option in cases where other less-lethal uses of force are being considered.

The TASER is best utilized in situations where a hostile or potentially hostile individual is threatening himself or another person. It is a great tool to use as an alternative to a hands on fight or "wrestling match" that can result in injuries to officers as well as to suspects. The TASER is likely to have more of an incapacitating effect on most individuals compared to aerosol chemical agents. The TASER is not a foolproof weapon. When used within the design parameters of the device, the TASER is a very effective, less-lethal, control device. Admittedly, the window of operation of the TASER is limited to 21 feet, but on the other hand it could be very useful in an environment in which deploying of a less-lethal munitions is impossible. ***The TASER can fill the gap between less-lethal munitions and hands on control techniques.***

INSTRUCTOR'S NOTE: *The Ninth Circuit 242 F3d 1119, ___ and n. 19 rule could arguably apply to any use of projectiles, stun guns, OC spray, K-9, baton, choke holds, and even fists and feet, as well as any tactical devices likely to cause serious injury. Because the rule applies where giving a warning is "feasible," reports on use of such force employed without a warning should document the reasons why it was not feasible to do so. Force policies and training may need review and updating, in light of the Deorie ruling. Per Manning & Marder, Attorneys of Law, in April 13, 2001, Law Enforcement Information Update.*

Tactical Considerations

- A FULL 5-SECOND CYCLE DEPLOYMENT SHOULD BE APPLIED WITHOUT INTERRUPTION
  (Unless circumstances dictate otherwise)
- EACH 5-SECOND CYCLE IS A "WINDOW OF OPPORTUNITY" FOR THE ARREST TEAM TO APPREHEND THE SUBJECT AND GO HANDS ON
  – Remember electricity does not linger in the body

INSTRUCTOR'S NOTE: *This recommendation is based upon testing by the RCMP in Canada. In volunteer tests, combative volunteers recovered almost immediately from short one or two second bursts. However, combative volunteers exposed to the full 5-second burst took longer to recover, appeared fatigued, and were less apt to regain combative behavior. This reorientation of behavior and extended recovery will enable officers to bring the situation under control more safely for both the officer and the suspect.*

Further, it cannot be emphasized enough that during the window of opportunity, that officers can go hands on with out fear of being incapacitated by touching a subject undergoing the 5-second cycle. The energy will not transfer to the officers as long as the probes are not touched. If this occurs, it is self-correcting in that the officer will be able to pull back from the current as opposed to the subject who is "attached" to the probes.

Follow Up Action

- TASER operator should anticipate holding the trigger down while the suspect is restrained
  - **Typically, the 1st cycle changes behavior, the 2nd allows for apprehension**
- Suspect is only incapacitated during the TASER cycle -- **the window of opportunity**
- Officers should provide verbal commands during and after the TASER application
- Officers need to subdue and cuff without hesitation
  - Do not touch or step on probes or wires

Tactical Considerations

- **Primary Tactical Consideration is: Loose or Very Thick Clothing**
  - Aim where clothing fits more tightly
  - Clothing tends to fit tighter in rear
  - T-Wave can penetrate SOME soft body armor, but not all
  - Maximum clothing penetration is 2” total or 1” per probe
  - Skin penetration of the probes is not required. Electrical arc can “jump” through clothing
  - Running targets may break wires

***INSTRUCTOR’S NOTE*:** Remind the students that common sense is key. For example, the wires are lightly insulated and can break easily if stepped on or if a running target is hit without allowing for extra slack, or if shot at the extreme range of 21 feet and the target falls away from the TASER operator.

Head / Face Shots (Avoid)

Photos from incident with face hit from TASER less-lethal weapon. Although this subject was fine, re-emphasize to class NOT to aim at the head or face. In this instance, the subject charged officers and put his head down as the officer fired, moving his face inadvertently into the probe path.

Photos from incident with probe impact to back of head. Although this subject was fine, re-emphasize not to target head area.

Drive Stun Backup

- The M26 and X26 will always fire a live cartridge when activated if an unfired cartridge is present
- Upon the firing of the cartridge, the M26 and X26 are capable of functioning in the stun mode immediately as backup weapon without having to remove the fired cartridge
- To use drive stun without firing probes, remove live cartridge
- The drive stun mode affects the sensory nervous system ONLY making it a pain compliance weapon that will not cause EMD
- If not effective, evaluate location of drive stun and change target of opportunity to pressure points

Drive Stun Mode

For maximum effectiveness in stun mode, aggressively drive the M26 or X26 into the highlighted areas.

- **Carotid**
- **Brachial plexus tie-in**
- **Radial**
- **Pelvic triangle**
- **Common peronial**
- **Tibial**

Drive stun field use success: 94%

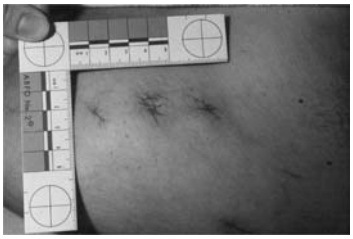
Use care when applying drive stun to neck or groin. These areas are sensitive to mechanical injury (such as crushing to the trachea or testicles if applied forcefully). However, these areas have proven highly effective targets. Refer to your department's policy regarding drive stuns in these and other sensitive areas.

Instructor's Notes: Advise the students to stay away from the trachea and the back of the neck. The trachea is soft tissue and could be easily crushed. The cervical portion of the spine is very fragile to pressure.

Below the cervical portion of the spine is the thoracic vertebrae which continues to the lower lumbar. This area is protected by large muscles and provides a good area for drive stuns. The carotid is the preferred area on the neck to apply the drive stun.

Someone in a mental health crisis state, under the influence of a mind altering substance, or extremely focused are prone to "mind-body disconnection." If only the stun mode is used, the X/M26 becomes a pain compliance technique with limited threat reduction potential for subjects at the high end of the three mind-body disconnect categories. **Drive the M/X26 aggressively into the subject for best result.**

Drive Stun Signature Marks



Instructor's Notes: The photos are actual results of drive stuns that were directly applied to the subjects resulting in apprehension. In a dynamic environment drive stun electrodes may slide on the skin on a thrashing subject cause multiple signature marks to single electrode marks if the drive stun is applied directly without movement. These marks will vary and the duration may vary but these marks are generally not permanent.

(Click on image above to start video. Click once to pause.)

Tactical Considerations

- Nothing is ever 100% effective -- do not become “TASER co-dependent”
- Have lethal cover or another reasonable and appropriate force option available as backup when possible
- Use COVER AND DISTANCE to ensure officer safety
- Whenever possible have at least one back up officer present as a “closer” to cuff suspect
- The wires are lightly insulated and can break easily if stepped or fallen upon, or if a running target is hit without allowing for extra slack

Instructor’s Notes: The term “TASER co-dependent” comes from several agencies and in particular the Los Angeles County Sheriff’s Custody Division. Some agencies have had so much TASER success that the officers rely on it so much that they sometimes ignore procedures, other less-lethal skills/tools or protective gear for cell extractions.

Tactical Considerations

- Consider environment surrounding suspect
- Yell, “TASER! TASER!” prior to deployment to prevent sympathetic reflex shooting
- If appropriate, allow display of arc or laser to gain compliance
- Use verbal commands if appropriate
- Use command other than “Shoot!” (“Deploy!”)
- Use 2nd 5-second cycle if suspect resists
- Watch for change in subject’s behavior

Tactical Considerations

- Deploy with 2nd Air Cartridge available or have a 2nd TASER nearby
- If first shot fails/misses:
  - Obtain cover to reload or resort to another tactic
  - If suspect charges, “C” step and aggressively use the “drive-stun” mode
- If Air Cartridge is a “dud,” keep weapon aimed upon target while shutting the X26 to safe (“hangfire”), discard immediately, reload with **new** cartridge and re-engage target. **Don’t attempt to reuse a dud**
  - Immediately notify TASER Int’l with the serial number and return it!

Hangfire: If the cartridge does not fire immediately, it may fire after a delay. Even-though the cartridge did not fire during the first pulse, there are 15-20 pulses per second, and any of these pulses may discharge the cartridge. Make sure that the weapon is aimed at the intended target until the weapon is put in safe mode. If you aim the weapon off target while the TASER is still cycling, it could discharge the cartridge and hit an unintended target.

Selective Targeting

- Good for enclosed environments and close quarters such as homes, courts, jail cells, emergency rooms, crowd control, etc.
- Chicago security guard deploys aerosol chemical agent in crowded club, panic ensues and 21 trampled to death on 2/17/2003

CHICAGO, Illinois (AP) -- It was a chaotic scene: Hundreds of screaming people stumbling down the darkened stairs of an illegally operated nightclub, gasping for air and stepping on bodies, only to find themselves trapped at the bottom trying to escape through a single exit.

At least 21 people were killed and 57 injured in the stampede early Monday at the crowded E2 nightclub, authorities said. There were reports that as many as 500 people were crammed into the second-floor club when someone deployed aerosol chemical agents to quell a fight about 2 a.m. Some people fainted on the club floor; others were coughing and crying, gagging and blindly groping for any way out.

Witnesses described a frenzied scene of some people trying to climb through the ceiling, while others were trampled in the frantic rush for an exit, their faces and bodies flattened against the glass front door.

"People were being trapped underneath you ... so we're actually standing on people's heads and we didn't even know it," said Amishoov Blackwell, a 30-year-old patron. "It was just bodies laying everywhere."

Blackwell said one man crushed between two people told him, "`I can't breathe! I want you to hold my hand, man. If I don't make it, tell my mom that I love her!' He just basically collapsed."

Some witnesses reported that the lights were cut in the stairwell. Friends and family of missing patrons flocked to the morgue Monday afternoon, searching for information and holding out hope that their loved ones were still alive.

"I just can't understand it," said Herschel Blake, who was looking for his 22-year-old grandson, Michael. "His mother called me and said, "Your grandson is dead. The door was locked. There was only one way out of the place.'"

Witnesses said some people were stomped on; many victims suffered crushing chest and head injuries. By Monday evening only seven of the injured remained hospitalized.

Most of the dead were in their 20s or early 30s. At least nine died from multiple trauma and four from cardiac arrest, authorities said. "Everybody smashed; people crying, couldn't breathe," said club-goer Reggie Clark. "Two ladies next to me died. A guy under me passed out."

Water and ice were passed to some of those trapped as rescuers struggled to pull them from the building.

"You could see a mound of people," said Cory Thomas, 33, who went to the club to pick up two friends. "People were stacking on top of each other, screaming and gagging, I guess from the pepper spray. The door got blocked because there were too many people stacked up against it."

"I saw them taking out a pregnant woman," Thomas said. "She was in bad shape. I saw at least 10 lifeless bodies."

Selective Targeting

(Click on image above to start video. Click once to pause.)

On 7/26/02, a Raytheon plant strike becomes a riot. One of the rioters is not stopped by multiple baton strikes by a local security guard. The crowd becomes agitated until the rioter is stopped by Chula Vista PD, CA officer with an ADVANCED TASER. The crowd disperses very quickly thereafter.

Note the lack of collateral effects on bystanders as well as the psychological effect on the crowd, which moves away naturally from the TASER subject.

Video of deployment of multiple electrical discharges to subdue subject

INSTRUCTOR'S NOTE: This incident is a DUI stop by the Ohio State Patrol that could have escalated to higher force levels. Note that the subject is returning to his vehicle with the intention to flee, turning his vehicle into a 4,000 lb runaway bullet. Note that the officer has to administer multiple TASER applications to gain compliance due to the high intoxication level of the subject. Again, this illustrates the importance of issuing TASERs to first responders.

The second video is a Nassau County Sheriff (FL) deputy who stops two males with a gun in a vehicle and one of the subjects becomes verbally non-compliant and is in a physical position to possible run away. The deputy's backup is miles away and this in a heavily wooded terrain where escape was a good possibility. The successful use of the M26 stopped the subject immediately without further incident.

The third video is a Florida law enforcement officer who pulled over a male subject for a traffic violation. Unbeknownst to the officer, the subject is wanted for a felony sexual assault. The officer is notified that this subject has a warrant for his arrest and draws his M26 out in advance while the subject comes out of the vehicle. The subject attempts to get back into the vehicle when told he is under arrest but is safely subdued with the M26 without further incident.

What to do Following TASER Use

- Arrest team can touch and handcuff subject while M/X26 is active
  - Do not touch probes or wires
  - Do not step on wires
- Operator should anticipate a second or third application
- Apprehend suspect as quickly as possible while the threat is disabled
- Take photos of any injuries & place into evidence
- Collect expended cartridge & place into evidence
- Treat used probes as biohazard

Sample Probe Removal Policy

Department Medical Staff will establish Department SOP

- Once in custody, advise paramedics or ER staff at hospital
- Remove/break wire near probes - dispose of probes and wire properly
- Point out puncture sites, as needed
- Only ER staff to remove probes embedded in sensitive tissue areas such as neck, throat, face, breast & groin
- Removal from other areas discretion of on scene supervisor. See your agency policy.

THIS IS A SAMPLE, REFER TO YOUR DEPARTMENT POLICY AS THESE WILL VARY

INSTRUCTOR'S NOTE: A training point is that whoever removes the probe must check the probe body and insure that the probe is intact and that the straightened barb is still attached to the probe body. There have been a few reported cases in which the probe was removed from a body but the pin/straightened barb pulled free of the body and remained in the skin. Needle-nose pliers will be required to remove this to get a firm grip or by hemostat by EMS or hospital.

There have also been a few reported incidents where the barbed tip broke off and only the small barb remained in the skin. In this instance, the barbed tip would behave similar to a small metal splinter, however removal by medical staff is still advised.

Sample Policy for Handling Used Probes

Department Medical Staff will establish Department SOP

- Treat probes that have penetrated the body as contaminated needles (use gloves)
- Grab probe firmly and pull straight out in quick fashion, using your free hand as a brace. Follow with alcohol or iodine swipe.
- Carefully place used probes sharp-tip first into either a sharps container or into the cartridge side wire pocket container, secure in place, and place in a secure location where no one will accidentally touch probes (even after training exercises)

IF OFFICERS ARE AUTHORIZED TO REMOVE PROBES: MAKE SURE OFFICERS EXERCISE CARE DURING PROBE REMOVAL - KEEP YOUR FREE HAND CLEAR OF THE PROBE AREA TO ENSURE YOU DO NOT SCRAPE YOURSELF WITH THE CONTAMINATED BARB.

THERE HAVE BEEN SEVERAL REPORTED INCIDENTS WHERE OFFICERS HAVE STUCK THEMSELVES WITH CONTAMINATED BARBS FROM SUSPECTS (NO REPORTED CASES OF BLOOD BORNE DISEASE TRANSMISSION, BUT PLEASE EXERCISE CARE).

(Click on image above to start video. Click once to pause.)

This video was filmed prior to Version 10.1 demonstration safety procedures. Make sure to follow demonstration safety procedures.

The preferred method to remove the probe from tissue is to stabilize the flesh with one hand, firmly and quickly pull the probe free. Make sure that the stabilizing hand is at least several inches away from the probe impact site. Several agencies have reported that officers have accidentally "raked" the barb across their own hand while removing a probe, breaking their own skin with a barb that is contaminated with the blood of the subject. No cases of blood borne disease transfer have been reported. However, it is critically important to stress the need to exercise extreme care with any object that has been exposed to body fluids.

Special medical procedures may be required for sensitive areas such as the eyes, groin, breast, etc. See your department policy on probe removal.

Improvisation video. In this video, the Alaska State Troopers encounter a suicidal man parked in his car. He has a knife, which he periodically holds to his own throat. Troopers used a window punch to knock out the window, followed immediately by a TASER conducted energy weapon shot. The subject was immobilized, disarmed, and arrested without injury (except for minor cuts from the broken glass).

X/M26 Maintenance & Care

Agency will establish agency maintenance SOP

- Avoid dropping - sensitive, electronic device -- similar care of a cell phone
- Check batteries / DPM regularly
- Always store X26 with DPM inserted
- Check expiration of Air Cartridges
- M26: Keep rubber stopper in dataport in field use
- M26: Use only authorized batteries
- Secure in protective holster, when not in use
- Do not store in pockets without holster
- **NEW SOP**: Should a X/M26 need to be returned to TASER Int'l, download the dataport for that unit and preserve for evidence for any concerns from a past event

One cautionary item: the X26 and the M26 are electronic items. Hence, they are complex and can experience different failure modes under extreme conditions. As one example, an M26 that was exposed to an intense "salt fog" test spontaneously fired a cartridge. The salt fog condensed on the trigger switch, and eventually shorted the switch, firing the weapon. At least one such failure was also reported from the field. While we have taken corrective actions to mitigate this risk, it cannot be completely eliminated. However, the BladeTech holsters for the M26 and the eXoskeleton holster for the X26 are designed to retain any fired probes such that they cannot project from the weapon. Further, the eXoskeleton holster has an automatic "safe" feature that forces the safety into the "safe" position when holstered. These protective safeguards assure safe storage of the weapon while in the holster.

Should a X/M26 need to be return to the factory for any reason, there is the possibility that this unit will be destroyed if it's being replaced as a warranty item. TASER Int'l does not retain the dataport readouts so it is up to the law enforcement agency to download the unit and save this file as potential evidence.

X/M26 Maintenance & Care

- Occasionally wipe out the Air Cartridge firing bay with dry cloth. Multiple cartridge firings create carbon build-up (particularly after training courses).

INSTRUCTOR'S NOTE: *The carbon comes from the primer in the Air Cartridge. It takes about 50 or more actual firings to get carbon build-up. Carbon just needs to wiped out with a dry cloth – not wet cloth. The carbon is conductive and should be removed.*

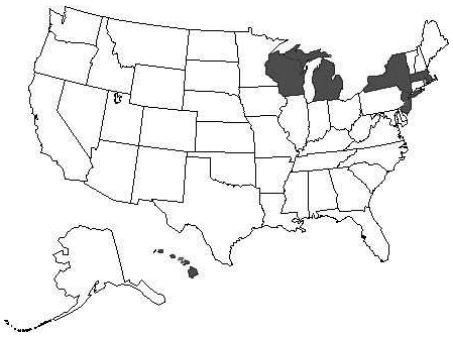
Your Department Policy / Procedures

- Purpose
- Department Policy
- Department Procedures for treatment of subject
- Post TASER reports for your agency for IACP database at www.TASER.com

Instructor: Distribute policy materials.

INSTRUCTOR'S NOTE: *During this portion of the training, the instructor should hand out copies of department SOP's to the users and review the content. Also, it is recommended that the department create a policy for declaring a TASER deployment to prevent sympathetic shootings. Many departments use either "Code Zebra" or "Code 100" or "Code TASER" as an all-band broadcast prior to deployment to alert other officers arriving on scene that the TASER is being deployed to* ***prevent "sympathetic nerve shootings"*** *(so that the "pop" from the TASER shot is not mistaken for a gun-shot). Also, many departments train officers to shout "TASER, TASER" prior to, or during the firing of the weapon to reinforce with all on-scene officers that a less-lethal weapon is being deployed.*

Citizen Defense TASER Weapons



TASER less-lethal weapons are legal for citizen self-defense in 43 states.

- U.S. Citizens own over 200 million firearms
- There are approx. 35,000 U.S. firearm fatalities each year
- TASER International believes effective less-lethal weapons offer a safe choice for self defense and can save thousands of lives while improving community safety

TASER less-lethal weapons are legal for private ownership for self defense in 43 states. The only states that restrict private ownership of conducted energy weapons and stun guns are shown in red: DC, HI, MA, MI, NJ, NY,RI & WI

Citizen vs. LE TASER Weapons

- Law enforcement TASER weapons have higher pulse rate & higher power output
  - Optimized for full body lockup for restraint
  - Only LE is sold 21 ft Air Cartridges
  - Private Citizens limited to 15 ft Air Cartridges
- Citizen TASER weapons have lower pulse rate, but may have longer discharge time
  - Optimized to allow user to get away
- Only LE TASER weapons have advanced dataport functionality

Citizen vs. LE TASER Weapons

Weapon	Pulse Rate	Duration
M26 (LE)	15 - 20	5 sec
M18 (C)	10 - 12	5 sec
X26 (LE)	19 - >15	5 sec
X26C*	17 - >10	15 to 90 sec

*X26C = Citizen's Defense Unit Coming in 2004

INSTRUCTOR'S NOTE:

According to the Centers for Disease Control, there are approximately 35,000 firearm related fatalities in the United States every year. We believe that TASER energy weapons can save thousands of lives as an alternative to deadly force for self defense.

Review

- Reduces officer AND suspect injuries AND incidents of use of deadly force
  - Dropped deputy injuries 80% in FL
  - 67% drop in injuries to suspects
- Reduces liability and legal costs
  - LASD: Could have saved $2,500,000
- Medically safe
- “Clean” solution, doesn’t impact bystanders in close quarters
- Selective targeting
- Electricity (+ laser) = deterrence
- Low cost per use

Are there any questions?

Practical Application

Single Shot Scenario

Issue one live cartridge to each student. They will be paired together.

Instructor sets up 4 targets, numbered 1-4 inside room. All students leave.

Students are advised, "You have just arrived at a domestic dispute call. There are two officers already on scene. Male is handcuffed in squad car. Female partner has just become extremely irate, demands police not take her husband away. She flees to kitchen, stating her intention to return with a knife to confront officers."

Students must enter in teams of 2, 1 lethal cover officer (red gun or other non-live firearm to be used) and a TASER officer. Officers must run or exercise briefly before entering room to elevate heart rate. On entering room, officers must communicate clearly between lethal and less lethal, maintain clear lines of fire, approach subject and deploy TASER. Officers must yell "TASER, TASER!" prior to deployment and continue to apply TASER pulsed energy and verbal commands until instructor declares "subject controlled."

Practical Application

Multiple Shot and Reloading

Issue two live cartridges and two expended cartridges to each student. They will be paired together. Each officer shall load his partner's weapon such that each officer does not know the location of the two live vs. two "dud" cartridges (one in chamber, one in XDPM, and two in holster).

Instructor sets up 4 targets, numbered 1-4 inside room. All students leave.

Students are advised, "You have just arrived at a bar fight. One subject is armed with an edged weapon, the other is unarmed."

Students must enter in teams of 2, 1 lethal cover officer (red gun or other non-live firearm to be used) and a TASER officer. Officers must run or exercise briefly before entering room to elevate heart rate. On entering room, officers must communicate clearly between lethal and less lethal, maintain clear lines of fire, approach subject and deploy TASER. Officers must yell "TASER" prior to deployment and continue to apply TASER pulsed energy and verbal commands until instructor declares "subject controlled."

On student entering the room, instructor yells "Target #X has the knife." Students must engage that target number first. If they miss or have a dud, need to reload and continue to engage same target until instructor declares "subject controlled." Instructor then yells "Target #Y is approaching, unarmed, with aggressive behavior." Team must engage until target under control. If no live cartridges remain, or misses occur, second target must be aggressively engaged with drive stun.

Practical Application

Live Simulation Scenario

Students in teams of three. Each student issued a Blue Simulation round.

Volunteer in protective gear such as Fist suit or similar. Ensure head, eyes, throat, and vital areas are well protected.

Scenario: "Subject is 280 pound male, irate, out of control, suspected under influence of PCP, cocaine, methamphetamines, or similar. Armed with two knives, in middle of street, threatening to kill self or others who come close."

High Threat Scenario - Use of Dual TASERs is Appropriate.

Officers must approach subject, keeping clear lines of fire and good communication. Volunteer should change behavior between incidents to make the scenario dynamic. Sometimes he should surrender, other times feign surrendering and resume violent behavior, etc. The goal is to place the officers in a dynamic, unpredictable situation as they are likely to encounter in the field.

The scenario should be played to completion including the restraint of the subject. There are several key tactical issues that should arise: for example, which officer will perform the hand-cuffing procedure? There are many schools of thought. For example, the TASER officer could remove the weapons from the scene, once the weapons are removed the lethal cover officer could holster his weapon and serve as the "closer" to restrain the subject while the TASER officer operates the less-lethal. The disadvantage of this approach is that lethal force cover is compromised (after the weapons are removed).

Another approach would be for the TASER operator to hand the TASER to the lethal cover officer and proceed to cuff the subject. However, this approach would risk the cover officer, not holding both a TASER and lethal firearm, could become confused and deploy the wrong weapon. These are two of the many different approaches and are intended as examples of the thought process that should go into formulating tactics.

Specific tactics and actions need to be evaluated in terms of department policies - the goal here is not for TASER International or its independent instructors to instruct specific policies, but to illustrate issues for force experts to consider in constructing tactics for real world scenarios.

Simulation Training

(Click on image above to start video. Click once to pause.)

For More information call TASER International at:

800-978-2737

Conclusion & Test

More info:

www.TASER.com

(updated regularly with new videos and current news)

YOUR EMAIL ADDRESS IS CRITICAL
to receive training updates

TASER International, Inc.
7860 East McClain Drive, Suite 2
Scottsdale, AZ 85260-1627
800-978-2737
Made in Scottsdale, AZ USA
Email: info@TASER.com

ADDENDUM
Planning for Contingencies, Minimizing Failures

SECTION A: PREPARE FOR THE WORST: WHAT CAN GO WRONG?

CASE EXAMPLE: M26 STOPS VIOLENT EDP FROM GRABBING KNIFE DESPITE NOT KNOCKING WOMAN DOWN

USE OF THE M26 BY FRANKLIN COUNTY SHERIFF'S DEPT., OH, 8/31/00:

A stout, 185-200 lb., 45-yr-old, female subject was served a warrant for transport to a mental health facility. When deputies were in the apt. to put her in custody, she suddenly turned very violent and officers attempted physical force to restrain her. She threw 2 officers against the wall. She broke away from 2 officers and ran to the kitchen area. She then attempted to grab a kitchen knife. The officers backed off and sprayed the women with pepper spray. She laughed. She continued to go for the knife. An officer fired a M26 from 3-7 feet away at her while she was turning to get the knife from a drawer. One probe hit near her left side and the other near her left hip area. The spread was 6-8" apart and both probes had penetrated through clothing and into skin. During the 1st 5-second cycle she did not go down and she said, "Turn that damn thing off", and she was not subdued.

When the cycle ended she tried to pull out one of the probes while reaching for a knife with her other hand. A 2nd 5-second burst was applied at which time she went to her knees and she was handcuffed. The M26 shooter stated that the woman trembled with minor pulsing and clinched her hands during the cycles. The woman was given verbal commands to get down. The 2nd cycle stopped her from getting to the knife. After the 2nd cycle she then complied with the officers' commands, but was not knocked to the ground by the M26. Rick Smith & Steve Tuttle interviewed Sgt. Gene Wise (scene supervisor), the M26 shooter, and briefly with the Chief.

The supervisor had concern that the woman didn't go down to the deck. Toward the end of the 2nd cycle, the M26 shooter said the woman became more compliant. The supervisor inquired what might have happened. Note the Duracell Ultras were new out of the package on Aug 30th w/ exp. of 2006. There were trace amounts of blood on the probes upon inspection. The M26 shooter said the arcing "seemed kind of loud." However, it still sounds like there was a good connection. The probes may have hit the area identified by the RCMP's testing as a weak point for muscle contraction -- the side torso area between hip and armpit. RCMP testing on human volunteers has found that hits in this area are highly uncomfortable, but this area is characterized by lack of major muscle groups. Hence there is insufficient muscle contraction to drop a focused combatant hit in this area. The M26 shooter and supervisor confirmed that the probes were close to that area.

Tactically, TASER Int'l and officers couldn't see any problems given the nature of a small room, chaos, a potentially lethal situation, and officers who were doing all the right things. TASER Int'l could only suggest shooting at the back (impossible at that time) and shooting to get more spread (impossible because of space restrictions) and having a 2nd M26 used (impossible, as they didn't have a 2nd one).
Note: Results of this deployment included one deputy being disabled by pepper spray and the woman had two small puncture wounds. Officer's comment: At the mental facility the subject was asked if she had a bad day. She told the doctor her day wasn't so bad and that she had been having fun all day. Overall, the use was considered a success in that the M26 stopped her from getting to the knife and obtained compliance without the need to escalate to the next level of force.

SECTION B: CONTINGENCIES VIDEO

When faced with thick clothing, or clothing which is loose or bunching away from the body, shot placement is more critical. Aim for areas where the clothing fits tighter.
Low Muscle Mass: Although we train to aim at center of mass, this may not always be the most effective target area if you are firing from very close range. When firing from the recommended distance of 12-18 feet, the top probe would hit the center of the chest while the bottom probe would hit below the belt line in the stabilizing muscles of the thigh, groin, and leg. However, when firing from close range (as is simulated in this example where the probes are placed under the nipple and above the belt line) the TASER may not directly stimulate the large muscles of the legs or back. As shown in the video, a highly focused individual may be able to remain erect and even continue to attack even under a direct hit to the center torso. While the TASER clearly causes a lock-up of his abdominal muscles, the target here is

able to advance forward.

Here are several tactics to review again with the class to maximize effectiveness of M26 deployments:

Against high-risk subjects, **simultaneously deploy 2 TASER conducted energy weapons** aimed at different areas of the body. As shown in the video, a hit from two TASER conducted energy weapons is safe. In cases involving edged weapons and other high-risk subjects, the redundancy and increased effectiveness of a dual hit is recommended. This will help reduce the risk of a failure that could result in lethal force escalation.

When possible, **aim at the back**. As shown in the video, a hit in the larger back muscles is more immobilizing. While the subject here was able to remain erect during a full abdominal contraction, when hit in the back the larger muscles in his back overpowered his ability to remain erect.

If deploying from very close ranges (closer than 8 feet), consider lowering your point of aim to the lower abdomen. This would cause the lower dart to hit in the thigh, groin, or the stabilizing muscles in the pelvic region to help ensure the target is dropped to the ground. (From closer ranges a center mass hit may only affect the abdominal muscles – especially when dealing with EDPs or intoxicated persons where the sensory effects will be numbed and the motor / muscular effects are more critical).

Be prepared that the subject may not drop to the ground immediately. Be prepared to deliver more than one cycle from the TASER, and be prepared to use strikes, impact weapons, and other uses of force in conjunction with the TASER to gain compliance. For example, in one recent field use an officer deployed the ADVANCED TASER M26 from a distance of 6 feet at center of the chest. The subject was debilitated, but was able to turn around and move away, causing the wires to break. The officer reloaded the M26 and again deployed at the target from 6 feet away at the center of the chest. While the unit was cycling, a second officer fired over the shoulder of the first officer, striking the subject in the center of the chest with a second M26 at the same time. The subject bent over, but did not drop immediately. The officers deployed two more five-second bursts from both M26's, slowly forcing the subject to the ground and finally gaining compliance. Don't expect that every subject will immediately fall down. Many of the subjects will, but be prepared for contingencies when they don't.

SECTION C: MURPHY'S LAW, A case in what can go wrong -- *BE PREPARED FOR ANYTHING!*

September 2000: An adult male was arrested for impaired driving. This individual had an extensive criminal record and had been involved in several violent physical encounters with the police in the previous six months. While being transported back to the police detachment building for the purposes of providing a breath sample, the suspect became increasingly agitated; he uttered several death treats to the officer.

Shortly after arriving at the detachment, the suspect refused to provide an adequate breath sample and once again became agitated. He turned to face the three officers that were present, raised his fists, and challenged them "to go". Given the suspect's combative posture and his previous history of violence, the one officer carrying the ADVANCED TASER drew the device and issued the TASER Challenge.

When the suspect continued his combative behavior, the ADVANCED TASER was fired from approximately 3.5 meters (12 feet). The suspect was wearing a sweatshirt along with a hooded kangaroo jacket made of similar weight sweatshirt fabric. The upper probe struck the suspect in the chest and embedded in this clothing (skin not pierced). The lower probe struck the tip of the drawstring and embedded in the plastic tip.

Based on an interview with the suspect 12 hours after the incident, it appears that he received some transient conducted energy current from the first cartridge. This is most likely attributable to the fact that the distance between the lower probe and the subject's body varied with his movements that caused the drawstring to randomly swing. When the probe was in close proximity to the subject's body the current would arc across the air gap; when that distance increased, the current ceased to flow. The suspect was able to rip the upper probe from his clothing and the probe embedded in the drawstring and through them to the ground.

The TASER operator quickly loaded a second cartridge and fired without the issuance of the TASER Challenge. This time the upper probe struck the subject in the left upper chest and penetrated both layers of clothing and embedded in his skin. The lower probe struck the subject in the kangaroo pocket. At this point the subject effectively had three layers of sweatshirt material. Inside this pocket the subject was carrying a plastic wallet containing his insurance documents. The manner in which the wallet was folded created another barrier of eight layers of plastic between the subject's skin and the probe.

Two full cycles (10 seconds) of conducted energy were delivered with the second cartridge. The suspect remained on his feet but did not advance toward the officers. The officers' perception was that the suspect maintained physical control and was able to move while the current was being administered. In the post incident interview, the suspect stated that he was "frozen" by the current and was unable to move or fall. It is unknown if the plastic folder created a barrier that may have reduced the current flow.

The bottom probe eventually dislodged from the clothing and fell off at the end of the second cycle. The suspect complied with the officer's directions and entered into the assigned cell. The cover officer at this point had brought out OC spray and was about to use it on the suspect; he believed this had reoriented the subject's behavior. The suspect later stated that he entered the cell willingly because he did not want to undergo further exposure to the TASER current.

Teaching Points:
Expect the unexpected. No device or technique will work 100% for all officers, 100% of the time, on 100% of the people. What are the odds of hitting the drawstring? This highly unlikely event did occur in this real life situation and essentially limited the effectiveness of the TASER. Be prepared to transition to another cartridge quickly or another intervention option (i.e.: OC spray, ASP®, knees/elbows, etc.).
Consider alternative target selection (i.e.: legs) if you do not get the desired results. During winter months you will encounter subjects with increased clothing barriers. Although the center mass (frontal or dorsal) will remain the primary target. If this is not successful, consider other options.
Do not assume that because a subject does not immediately fall to the ground that he/she is not being affected by the conducted energy current. If time and distance permit, and the threat level has not increased, continue to apply the TASER current as necessary while providing verbal direction to the suspect. For example, "Lay down or I will hit you with 50,000 volts again."

SEGMENT CONCLUSION

The TASER conducted energy weapons can be effective in many circumstances we encounter. Like all other use of force issues, it should not be totally relied upon with the exclusion of all other options. But it can be a powerful and very effective tool to keep everyone safer.

INSTRUCTOR'S NOTE: *Emphasize that Conducted Energy Weapons are not toys, and their use should not be taken lightly. As with any weapon system, there can be unforeseen and severe consequences. They should only be used in accordance with the use of force policies of the department. Although TASER International agrees with the definition on non-lethal weapons from the Joint Concept for Non-lethal Weapons, the Company has adopted the term less-lethal in conjunction with input from law enforcement in order to clarify that there will always be risk involved in use of force.*

CLOSING STATEMENT

"The most important decision an officer can make is whether or not to engage deadly force upon a person. With the new remarkable advances in technology we can now serve and protect people and communities with less than lethal means. Now we have the technology to stop that individual who is combat trained, mentally deranged, or under the influence of drugs and alcohol."

Outline Questions

These questions are intended primarily for use in the instructors' course.

1. HOW DOES AN ADVANCED TASER WORK? Upon firing, compressed nitrogen projects two ADVANCED TASER® probes 15 or 21 feet (depending on cartridge) at a speed of 180 feet per second. The probes are connected by thin insulated wire back to the ADVANCED TASER. An electrical signal transmits throughout the region where the probes make contact with the body or clothing. The result is an instant loss of the attacker's neuromuscular control and any ability to perform coordinated action. ADVANCED TASER uses an automatic timing mechanism to apply the electric charge for 5 seconds.

HOW CAN IT BE SO EFFECTIVE YET NON-INJURIOUS? The ADVANCED TASER does not depend upon impact or body penetration to achieve its effect. Its pulsating electrical output interferes with communication between the brain and the muscular system, resulting in loss of control. However, the ADVANCED TASER is non-destructive to nerves, muscles and other body elements. It simply affects them in their natural mode. More importantly, no deaths have ever been directly attributed to the TASER®.

DOES THE TASER AFFECT THE HEART OR A CARDIAC PACEMAKER? The ADVANCED TASER's output is well below the level established as "safe" by the federal government in approving such devices as the electrified cattle fence. In a medical study, Dr. Robert Stratbucker tested the M26 at the University of Missouri and confirmed that the T-Wave does not interrupt the heartbeat or damage a pacemaker. Any modern pacemaker is designed to withstand electrical defibrillator pulses that are hundreds of times stronger than the ADVANCED TASER's output. The ADVANCED TASER current of 1.76 Joules is well below the 10-50 joule threshold above which cardiac ventricular fibrillation can occur.

ISN'T HIGH VOLTAGE LETHAL? High voltage, in itself, is not dangerous. One can receive a 25,000-Volt shock of static electricity from a doorknob on a dry day without harm. The physiological effect of electrical shock is determined by: the current, its duration, and the power source that produces the shock. The typical household current of 110 Volts is dangerous because it can pump many amperes of current throughout the body indefinitely. By contrast, the ADVANCED TASER power supply consists of 8 AA hi-output alkaline 1.5-Volt batteries capable of supplying 26 Watts of electrical power for a few seconds.

WILL THE TASER CAUSE ELECTROCUTION? No. The output is metered by the electronics and the electrical energy in each pulse is always the same, regardless of the target condition. The electrical output will not be transferred from one person to another even if they touch. Over 1,000 individuals have personally tested the ADVANCED TASER.

WHAT ARE THE AFTEREFFECTS? A person hit with an ADVANCED TASER will feel dazed for several seconds. Recovery is fast and the effects stop the very instant that the unit shuts off. Some will experience critical response amnesia and others will experience tingling sensations afterwards. The pulsating electrical output causes involuntary muscle contractions and a resulting sense of vertigo. It can momentarily stun or render immobilized. Yet, the ADVANCED TASER's low electrical amperage and short duration of pulsating current, ensures a non-lethal charge. Moreover, it does not cause permanent damage or long-term aftereffects to muscles, nerves or other body functions. A January 1987 Annals of Emergency Medicine study reported that similar TASER technology leaves no long term injuries compared with 50% long term injuries for gun shot injuries.

MUST THE PROBES PENETRATE THE BODY TO BE EFFECTIVE? No. The electrical current will "jump" up to two inches as long as both probes are attached to clothing or skin. At most, only

the 3/8-inch needlepoint will penetrate the skin. They have less energy than a spring propelled BB. Both probes need to contact the body or clothing and be within two inches of the body to stop an attacker.

WHAT IF THE PROBES MISS? The ADVANCED TASER can work if one probe hits a human and the second falls on grass or dirt as the power grounds. However, the results depreciate substantially if the second probe lands on concrete, asphalt or not all on wood floors. Otherwise, the ADVANCED TASER can be used in a touch-stun mode. The user is thus provided with two backups. A secondary Air Cartridge accessory is available that holds a backup cartridge below the ADVANCED TASER's handgrip. A final backup if the probes miss the target is the touch stun feature. Should the user miss or engage a second attacker, the ADVANCED TASER can applied directly to the target and it will work like a powerful touch-stun device.

CAN THE ADVANCED TASER CAUSE FIRE? The ADVANCED TASER will not ignite standard solids or even black gunpowder. However, the spark from an ADVANCED TASER can ignite some flammable liquids, vapors, meth labs or sensitive explosives. The ADVANCED TASER should not be used anywhere that cigarettes are forbidden for fire safety reasons. The ADVANCED TASER should never be used on anyone who has been sprayed with an alcohol based chemical spray – including some alcohol based pepper sprays -- which could ignite.

WHAT ABOUT THE POTENTIAL OF EYE INJURY FROM THE ADVANCED TASER? The ADVANCED TASER should always be aimed at the attacker's chest or back, since both probes need to hit some part of the body to be effective. The torso provides the largest surface area to hit. *The ADVANCED TASER should never be aimed toward an attacker's face.* This is a serious self-defense device and should be treated as such. Moreover, putting any sharp object into an eye is potentially dangerous to the cornea.

HOW WILL THE ADVANCED TASER PREVENT CRIMINAL USE? Our mission is to ensure technology can play a positive role in our society. To that end, an Anti-Felon Identification (AFID) system is used so criminal use of the ADVANCED TASER can be traced from evidence dispersed by the device itself to provide the exact identification of the Air Cartridge purchaser. No other self-protection device in the world -- guns, chemical and pepper sprays, touch-stun devices or batons -- can be traced from evidence at the scene of the crime directly to the registration of the user.

WILL THE PROBES STICK TO BULLETPROOF VESTS? Some bulletproof vests are made specifically to stop only bullets and gun shot projectiles -- not knives or sharp devices such as syringe needles. Should the probes attach to clothing in front of the soft body armor, the T-Wave can penetrate some of these vests with near full-effect. Although most bulletproof vests are made to stop bullets, the vests are porous and will not stop the flow of electrons. A bulletproof jacket with metal shock plates can cause the probes to bounce off the target. However, some companies have reported that there is soft body armor that has filled the porous material with rubber and/or plastics, which may prevent the T-Wave from penetrating the body armor. Twaron® is difficult for the TASER-Wave to pass through in bulk.

WHAT IS THE BEST-SHOT AT MAXIMUM RANGE? As long as the spread of the probes is at least four inches, the ADVANCED TASER will be extremely effective. To ensure that the spread is greater than four inches, the ADVANCED TASER should be fired at a target several feet away. The optimum shot is from seven to ten feet away form the target to achieve maximum effect using a 15-foot cartridge and 12-18 for a 21-foot cartridge.

DOES TEMPERATURE HAVE A DETRIMENTAL EFFECT ON THE ADVANCED TASER? Yes. The weakness to the system is not the ADVANCED TASER. The batteries limit the effectiveness in cold and extremely hot temperatures. Alkaline batteries perform poorly at freezing temperatures.

However, Nickel Metal Hydride (NiMH) rechargeable batteries can be substituted in a freezing climate, as their performances are better suited in colder climates. The heat issue is only an issue if the ADVANCED TASER were left sitting in the sun, once again adversely affecting the batteries. As for the Air Cartridge, it utilizes compressed nitrogen (an inert gas). The ADVANCED TASER compressed air capsules have successfully held their charges at temperatures of minus 20º F and up to 160º F. Moreover, altitude will not adversely effect the firing of an ADVANCED TASER. In addition, the temperature will not effect the T-Wave. However, as with any product containing polycarbonates and other thermoplastics, the ADVANCED TASER and Air Cartridges should never be left in direct sunlight.

SUMMARY POINTS:

- Truly incapacitating: This less-lethal system is solely designed to stop the most hardened of targets: extremely violent, aggressive, goal-oriented and drug induced suspects.
- It can't kill or maim innocent bystanders, damage buildings or aircraft fuselages with stray bullets.
- Won't damage buildings or aircraft: It is a defensive device and can't penetrate walls, doors or glass.
- It is far more effective than other less-lethal self-defense devices, such as pepper sprays or beanbag weapons -- no cross-contamination or blunt instrument damage inflicted.
- It uses the same muscle memory as that of a firearm for police under stress. The ADVANCED TASER records the last 585 firings to protect law enforcement from false allegations of misuse.
- Training is simple and the learning curve is relatively flat – critical in training multiple users
- The ADVANCED TASER is 26 Watts. Its amperage is 0.162 – not enough to cause damage to the human body. It is 50,000 Volts.
- Effective against most conventional body armor and other counter-measures.
- The stun gun backup does not make this a one-shot only device.
- Lifetime Warranty.
- It will not cause a heart attack or damage a pacemaker; will not cause electrocution, even if target is standing in water.
- It will not cause urination or defecation.

TASER® X26 / M26 Pre-Deployment Checklist

____ **Develop Department Deployment Policy**
Example policies are included on the TASER International CD-ROM. While these policies may be used to form the basis of your department policy, department management should ratify and modify the policy for your department's specific requirements.

____ **Develop Use of Force Guidelines**
Example policies are included on the TASER International CD-ROM. While these policies may be used to form the basis of your department policy, department management should ratify and modify the policy for your department's specific requirements.

____ **Develop Supervisory TASER Use Report**
An example report is included on the TASER International CD-ROM. While this report may be used to form the basis of your department policy, department management should ratify and modify the policy for your department's specific requirements.

____ **Brief Relevant Community Services**
It is recommended to notify relevant interest groups in the community prior to or concurrent with TASER deployment. The following community groups should be considered:

- Fire Battalion Chief
- EMTs
- Local Hospital Staff
- Media

TASER International, Inc. personnel are available to assist in media relations. Media education prior to deployment will serve the department best by ensuring more accurate understanding of the TASER and the reasons for its deployment. **Further, media education provides an opportunity to educate the public about the steps the department has undertaken to reduce liability and injuries to both officers and suspects.**

____ **Establish File for TASER Certifications**
All officers should pass certification course prior to deployment of the TASER. Signed certification tests should be kept on file for all officers using the TASER. All certified officers should receive printed copies of the following documents at time of certification:

- Department Deployment Policy
- Use of Force Guidelines
- Supervisory TASER Conducted Energy Weapons Use Report

____ **Establish File for TASER Use Reports**
Every use of the TASER technology should be documented using the department's established report (as modeled in the training manual). Part of the filing procedure should be to go online to the TASER Int'l website (www.TASER.com) and submit a use report. If you do not have access to the Internet, please fax a copy of the report to TASER Int'l at 480-991-0791, Attn: Law Enforcement Affairs. Information used to establish a national usage database that will be submitted to the International Association of Chiefs of Police Use of Force Database. **Please mark reports as confidential and strike names as appropriate.**

TASER® X26 / M26 User Certification Checklist

The requirements set forth below are deemed to be the minimum requirements to obtain a manufacturer's user certification. These requirements are considered to be the basis for a sound understanding of how and when to use the TASER and should be completed prior to deployment. A copy of each user's Certification Test should be kept in department records to validate certification.

____ **Complete minimum 4 hours of instruction**
The user shall have completed minimum of 4 hours of instruction under the guidance of a certified instructor. Coursework shall include all topics in User Lesson Plan, including all drills and functional demonstrations.

____ **Pass Written Examination**
User must pass written examination with a score of 80% or greater.

____ **Pass Functional Test**
User must pass all functional tests listed at the end of the Certification Test.

____ **Fire four (4) Air Cartridges (one additional simulation cartridge for scenario training rec'd)**
The user should fire four (4) Air Cartridges to both familiarize the user with the functions of the system as well as to test aptitude. The user should fire one Air Cartridge during the instruction course and three Air Cartridges during the final test. The user must be able to hit the target from 8 feet without the laser sight, and must be able to hit the target from 12 feet using a laser sight and firing two Air Cartridges within 10-second time limit. Students who do not hit the target should be run through aiming drills, and asked to fire again. Users should not be qualified until they have passed both firing tests. It is up to the discretion of the issuing law enforcement agency to determine the minimum number of shots fired for user qualification. However, at a minimum at least 2 shots must be fired to receive this certification from TASER International.

Certification is valid for a period of one year. Users should re-qualify once each year.

Re-qualification Checklist

____ **Pass Written Examination**
User must pass written examination with a score of 80% or greater.

____ **Pass Functional Test**
User must pass all functional tests listed at the end of the Certification Test.

____ **Fire a minimum of two (2) Air Cartridges**
The user must fire a minimum of 2 Air Cartridges to both re-familiarize the user with the functions of the system as well as to test aptitude. The user should fire one Air Cartridge during the instruction course and three Air Cartridges during the final test. The user must be able to hit the target from 8 feet without the laser sight, and must be able to hit the target from 12 feet using a laser sight and firing two Air Cartridges within 10-second time limit. Students who do not hit the target should be run through aiming drills, and asked to fire again. Users should not be qualified until they have passed both firing tests.

SUPERVISORY TASER® USE REPORT

Date/Time: _____ TASER Officer's Name: _____

E-mail: _____ Department: _____

Dept Address: _____ Phone: _____

On Scene Supervisor: _____Officer(s) Involved: _____

TASER Model (check one): ___ X26 ___ M26

TASER Serial #: _____ Medical Facility: _____ Doctor: _____

Nature of the Call or Incident: _____ Charges: _____ Booked: Y / N

Location of Incident: ( ) Indoor ( ) Outdoor ( ) Jail ( ) Hospital

Type of Force Used (Check all that apply): ( ) Physical ( ) Less-lethal ( ) Firearm ( ) Chemical

Nature of the Injuries and Medical Treatment Required: _____

Admitted to Hospital for Injuries: Y / N Admitted to Hospital for Psychiatric: Y / N

Medical Exam: Y / N Suspect Under the influence: Alcohol / Drugs (specify): _____

Was an Officer, Police Employee, Volunteer or Citizen Injured other than by TASER? Y / N

Incident Type (circle appropriate response(s) below):

Civil Disturbance Suicidal Suicide by Cop Violent Suspect Barricaded Warrant Other

Age: _____ Sex: _____ Height: _____ Race: _____ Weight: _____

TASER use (circle one): Success / Failure Suspect wearing heaving clothes: Y / N

Number of Air Cartridges fired: _____ Number of cycles applied: _____

Usage (check one): ( ) Arc Display Only ( ) Laser Display Only ( ) TASER Application

TASER: Is this a dart probe contact: Y / N Is this a drive stun contact: Y / N

Approximate target distance at the time of the dart launch: _____ feet

Distance between the two probes: _____ inches Need for an additional shot? Y / N

Did dart contacts penetrate the subject's skin? Y / N Probes removed on scene: Y / N

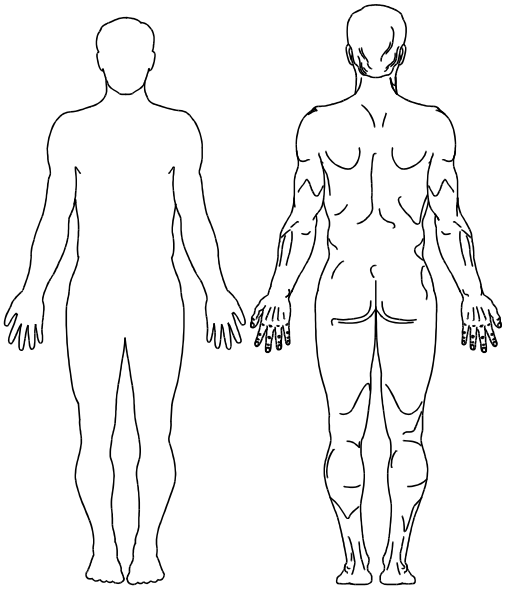
Did TASER application cause injury: Y / N If yes, was the subject treated for the injury: Y / N

DESCRIPTION OF INJURY:

_____

_____

APPLICATION AREAS
(Place "X's" where probes hit suspect <u>AND</u> *"O's" where stunned*)



SYNOPSIS:

_____
_____
_____
_____
_____
_____

Need for additional applications? Y / N Did the device respond satisfactorily? Y / N

Describe the subject's demeanor after the device was used or displayed?

_____
_____
_____

Chemical Spray: Y / N Baton or Blunt Instrument: Y /N

Authorized control holds: Y / N If yes, what types: _____

Describe other means attempted to control the subject: _____

Photographs Taken: Y / N Report Completed by: _____

ADDITIONAL INFORMATION

_____
_____
_____

7860 E. McClain Dr., Suite 2 * Scottsdale, AZ 85260 * USA * 480-991-0797 * Fax 480-991-0791
www.TASER.com

TASER® X26 and M26 Certification Test

PRINT LEGIBLY AND CLEARLY PLEASE!

Name: _____ Dept. / Company: _____

Rank: _____ Email: _____

Phone:_____ Fax: _____

Address: _____

_____

Training Date: _____ Location: _____

1. When deploying probes, the TASER should generally be aimed at:
   A. Face
   B. Center of body mass
   C. The throat
   D. The head

2. The red pulsing light on the ADVANCED TASER M26 handle with Alkaline batteries indicates:
   A. The battery should be replaced.
   B. The battery is good and the ADVANCED TASER is ready to deploy.
   C. There is a malfunction
   D. The unit is off.

3. When you arm the TASER X26 (safety shifted up), the CID will display a two-digit number. What does this number indicate:
   A. Remaining battery life percentage
   B. The current date
   C. The system temperature
   D. The expiration date of the warranty

4. The maximum range of the TASER X/M26 is.
   A. 8 feet.
   B. 13 feet.
   C. 21 feet.
   D. 25 feet.

5. After deploying the TASER X/M26 upon the "threat."
   A. Immediately turn the unit off.
   B. Allow the firing cycle to continue until the threat is controlled.
   C. Use the unit as a drive stun if the probes miss the threat or reload the TASER.
   D. Both B and C.

6. The TASER X26 dataport records the most recent number of firing times/date of use?
   A. 100
   B. 200
   C. 500
   D. 1,500 +

7. The TASER X/M26 automatic timing cycle is for what duration?
   A. 1 minute
   B. 30 seconds
   C. 15 seconds
   D. 5 seconds

8. True or False: The TASER X/M26 will not work as a “drive stun” with an expended (fired) Air Cartridge in place.

9. True or False: The ADVANCED TASER M26 operates at 50,000 Volts and 26 Watts. The TASER X26 operates at 50,000 Volts with Shaped Pulse™ Technology.

10. True or False: The TASER X/M26 may be used on threats under the influence of alcohol and mind altering drugs.

11. True or False: The TASER X/M26 probes must break the skin to work.

12. True or False: The TASER X/M26 automatic timing cycle cannot be stopped during operation.

13. True or False: The TASER X/M26 recommended firing distance is 7-15 feet.

14. True or False: The TASER X/M26 is designed to operate similar to a firearm.

15. True or False: The TASER X/M26 affects the **sensory nervous system only**.

16. True or False: The TASER X/M26 live 15 foot cartridge has a solid yellow colored front.

17. True or False: The TASER X26 uses two 9 Volt batteries.

18. True or False: The TASER X/M26 fires its bottom probe at a 12-degree downward angle.

19. When using the TASER X/M26 with chemical sprays, the following must be considered:
   A. Type of propellant and base of chemical or pepper spray (for flammability).
   B. If the threat has been sprayed in the eyes.
   C. Whether the chemical spray was O.C. or C.S.
   D. All of the above.

20. If the threat is standing in water when the TASER X/M26 is deployed:
   A. The TASER X/M26 will not function.
   B. Only the threat will be electrocuted to potential death.
   C. Both the officer and threat will be electrocuted to potential death.
   D. The TASER X/M26 will work properly.

21. The ADVANCED TASER is constructed of what material?
   A. Recycled plastic grocery bags.
   B. Sonic welded, molded, high impact polymer.
   C. Machined alloy.
   D. Lightweight metal.

22. The TASER X/M26 T-Wave output simulates.
    A. The electronic waves used by communicating dolphins.
    B. The electronic signals used by the human nerves to communicate.
    C. The microwave signals used by police radar detectors to communicate information.
    D. The electronic output of a 110-Volt electrical socket.

23. The TASER X/M26 long-term effect on the threat is:
    A. Possible intermittent seizures.
    B. Temporary, unexpected blindness.
    C. None.
    D. Nervous twitches.

24. The "TASER-Wave" electronic signals of the TASER X/M26 are effective:
    A. Through up to two inches of clothing.
    B. Through some types soft body amour.
    C. Through lightweight clothing.
    D. All of the above.

25. The TASER X/M26 EMD Weapons affect the:
    A. Urinary tract
    B. Sensory nervous system
    C. Sensory and motor nervous systems
    D. Cardiac system

26. The unit for rating the incapacitating effect of the TASER X/M26 is the MDU, which means:
    A. Minimum Dielectric Unit
    B. Muscular Disruption Unit
    C. Maximum Deactivation Unit
    D. Nonlinear Coefficient Unit

27. The incapacitation rating of the ADVANCED TASER M26 is:
    A. 50 MDU’s
    B. 75 MDU’s
    C. 100 MDU’s
    D. 105 MDU’s

28. The incapacitation rating of the TASER X26 is:
    A. 50 MDU’s
    B. 75 MDU’s
    C. 100 MDU’s
    D. 105 MDU’s

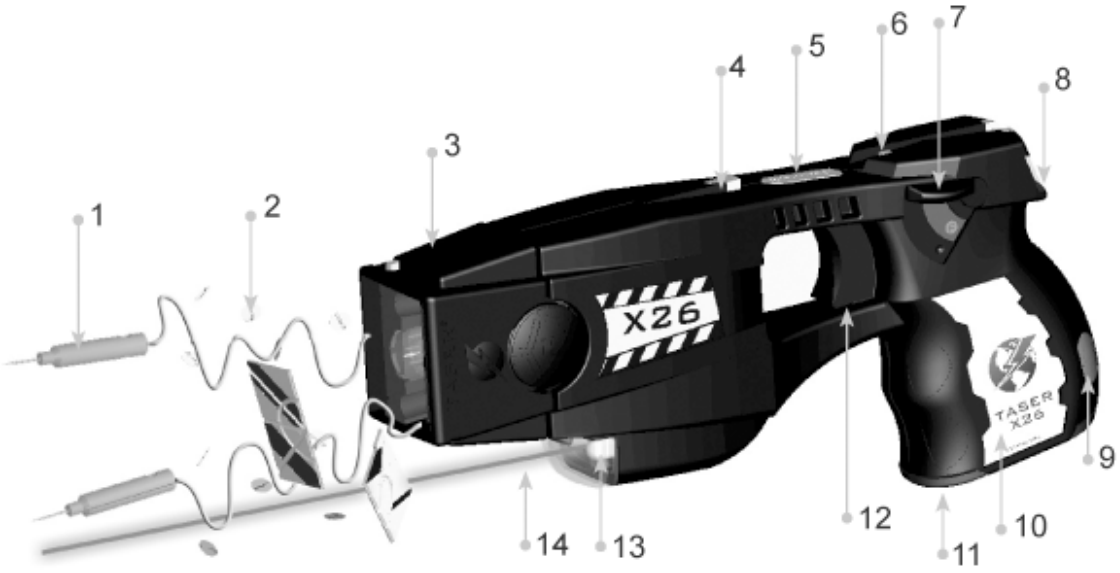
29. Explain the difference between the M26's "blunt" pulse and the X26's Shaped Pulse:
Blunt Pulse:

Shaped Pulse:

ADVANCED TASER® M26 NOMENCLATURE
Identify the parts of the ADVANCED TASER

A. Trigger _____
B. Battery Cover _____
C. Air Cartridge _____
D. Dataport _____
E. Safety _____
F. Battery Cover Pin _____
G. Front Sight & Rear Post Sights _____
H. Built-in Laser _____
I. Battery Indicator _____

TASER® X26 NOMENCLATURE
Identify the parts of the ADVANCED TASER



A. Trigger _____

B. Digital Power Magazine (DPM) _____

C. Air Cartridge _____

D. Mechanical Sight _____

E. Safety _____

F. DPM Release Button _____

G. Stainless Steel Shock Plate _____

H. Built-in Laser (pointing to beam) _____

I. Central Information Display (CID) _____

J. Probes _____

K. Low Intensity Illuminators (LIL) _____

L. Serial Number Plate _____

M. Illumination Selector Switch _____

N. AFID Tags _____

TASER® X26 and M26 User Certification

PRINT LEGIBLY AND CLEARLY PLEASE!

Rank: _____ Name: _____

Dept. / Company: _____

Phone: _____ Fax: _____

Email: _____

Address: _____

_____

Number of answers correct: _____ out of 52. (80% minimum = 42 correct answers)

Instructor to initial that student has successfully completed the following practical application tests:

_____ Demonstration of proper finger positions for aiming and firing.

_____ Reload TASER 5 times in 15 seconds (watch finger position, disqualify for fingers in front of blast doors).

_____ Officer can control unit adequately when commanded "Arm - Spark - Off" at random.

_____ Officer can remove and reinstall battery correctly.

_____ Draw TASER and hit target at 8-foot distance (time limit 5 seconds).

_____ Draw TASER (select the unit most likely to be used in the field) hit target at 8 feet, reload, hit 2nd target at 12 feet with laser sight (time limit 10 seconds).

I hereby Certify that _____ has successfully completed a minimum of four hours training, has passed the written test with a score of 80% or better, has passed the above functional tests, has demonstrated sufficient proficiency in the function, and use of the ADVANCED TASER and is hereby certified as a trained user of this system.

Attested: _____ Dated: _____
Certified Instructor

Maintain a file copy of this certification in department records.

TASER® X26 and M26 Instructor Application

PRINT LEGIBLY AND CLEARLY PLEASE!

Rank: _____ Name: _____

Dept. / Company: _____

Phone: _____ Fax: _____

Email: _____

Address: _____

_____

Written certification test score: _____ out of 52. (90% minimum required = 42 correct answers).

Instructor to initial that student has successfully completed the following practical application tests:

_____ Demonstration of proper finger positions for aiming and firing.

_____ Reload TASER 5 times in 15 seconds under stress conditions

_____ Instructor can control unit adequately when commanded "Arm - Spark - Off" at random.

_____ Instructor can remove and reinstall battery correctly.

_____ Draw TASER and hit target at 8-foot distance while under stress (time limit 5 seconds).

_____ Draw TASER (select the unit most likely to be used in the field) hit target at 8 feet, reload, hit 2nd target at 12 feet with laser sight while under stress (time limit 10 seconds).

I hereby certify that _____ has passed the ADVANCED TASER Certification Test with a minimum score of 90% and has met the above criteria for sufficient knowledge and presentation skills to safely and comprehensively instruct others in the use of the ADVANCED TASER less-lethal weapon.

Attested by Certifying Master Instructor: _____ _____
(Signature) (Print Name)

Date: _____ Certifying Master Instructor ID: _____

Certification Instructions:

- Mail a copy of this completed form along with copy of completed Certification Test to:

  Instructor Certification
  TASER International
  7860 E. McClain Dr., Suite 2
  Scottsdale, AZ 85260, USA

- Upon approval, Instructor Applicant will be issued a TASER International Instructor ID Code, which will be returned via fax, email, or mail. The Instructor Certificate will be mailed.

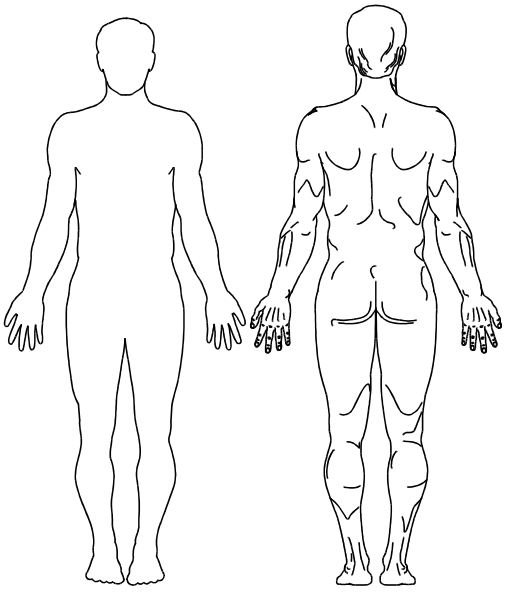
TASER® X/M26 Demo Report

Age: _____ Sex: _____ Height: _____ Weight: _____ Check: M26 X26

Did dart contacts penetrate the subject's skin? Y / N

Air Cartridge Type: Regular Darts XP Darts
Did the application cause injury: Y / N
If yes, was the subject treated for the injury: Y / N

APPLICATION AREAS
Please place "X's" on the points of contact



Please list effects, comments and or how it felt. (Note, could you fight back?):

_____
_____
_____
_____

This information is requested for the *International Association of Chiefs of Police Use of Force National Database Project and published in our medical research*.

May we quote your comments? Y / N

Signature: _____

ACTIVITY II Instructor Presentations DAY TWO

OBJECTIVE: To provide an opportunity for participants to demonstrate product knowledge, communication skills and public speaking techniques.

TIME: 0700-0900

MATERIALS: Participants Instructor Manual. Power Point

PROCEDURES:

1. The Master Instructor/Facilitator will explain that each participant will be called upon to make a 3-minute presentation.
2. The Master Instructor will instruct one of the students to time the presentations and hold up a 30-second warning card for presenters.
3. Presentations will be called when time is called.
4. The students will be reminded that the Master Instructor will critique each presentation and meet with trainees to review and discuss the critique of the presentation.
5. The Master Instructor will randomly call on trainees to make their 3-minute presentations.

TASER INSTRUCTOR

PERFORMANCE EVALUATION

Candidate:	**Agency:**
Training Location:	**Training Date:**

Evaluate the instructor/ candidate by utilizing the following factors. Each Candidate will be evaluated on a scale of 1 to 10, (10) being outstanding and (1) needs improvement. The growth of the instructor will depend on your specific observations. Your comments will benefit the instructor's classroom presentation.

FACTORS TO CONSIDER	**COMMENTS**
1. INSTRUCTOR KNOWLEDGE: … Adequately prepared…Knew topic matter…Followed lesson plan…Met purpose/ objectives of the lesson plan…	
2. TEACHING TECHNIQUES: …Application of teaching methodologies…Variety of visual aids…Eye contact…	
3. ABILITY TO MOTIVATE: …Enthusiastic…Appropriate use of humor…Maintained interest of the students…	
4. SPEECH: Spoke clearly and distinctly…Intonation…Projection…Grammar…	
5. PROFESSIONALISM: …Demeanor/ conduct…Appearance…Classroom presence…Body language…Posture…	
6. OVERALL EVALUATION: …Instructor presented information clearly…Students were able to grasp the lesson objectives and concepts…	

Test Performance:

- ❑ Pass
- ❑ Fail

Taser Instructor Recommendation

- ❑ Instructor
- ❑ Conditional Instructor
- ❑ User Certification Only

Taser International Authorized Signature

Master Instructor Signature: _____ Date: _____

TASER® X/M26 Test and Evaluation Unit

PRINT LEGIBLY AND CLEARLY PLEASE!

Rank: _____ Name: _____

Dept. / Company: _____

Phone: _____ Fax: _____

Email: _____

Address: _____

_____

Free 30 Day Test & Evaluation (T&E) Unit **If you would like to keep your training unit as a T&E, fill in 1. or 2. and sign below.**	
1. If you received a T&E to take with you today: _____ Serial Number of X26 or M26	2. If you did **not** receive one today but would like a T&E unit sent to you: Check here to have an M26 T&E sent to you. Check here to have an X26 T&E sent to you.
_____ Signature	

Your signature for a T&E acknowledges that you agree to either return the unit after 30 days, or make payment to either TASER International, or your local TASER distributor (a bill will be mailed in 30 days, at which time you may return the unit, or make payment). Should you elect to keep the T&E, the XDPM and Dual Cartridge Holster are yours to keep at no charge.

Course Evaluation Form

TASER International Course Evaluation Form

_____ _____

Location Date

_____

Name(s) of Course Intructor(s)

Product Feedback – which product were you certified in (check one or both): M26 X26

What did you like about the product?

What could we improve on the product?

Overall rating of the product? 5 4 3 2 1
Excellent Poor

Course Feedback

What did you like about the course content?

How could we improve the training?

Overall rating of the class? 5 4 3 2 1
Excellent Poor

Instructor Feedback

What did you like about the instructor?

How could the instructor improve his/her performance?

Overall rating of instructor? 5 4 3 2 1
Excellent Poor

Send additional comments on the instructor, course and product to Hans@TASER.com or call Hans Marrero, Chief Instructor at 480-905-2076.

ADDITIONAL COMMENTS: