



# **Certification Lesson Plan**

**AIR TASER<sup>®</sup> Model 34000**

**And**

**ADVANCED TASER<sup>®</sup> M26**

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# COURSE OUTLINE

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

**A. TERMINAL LEARNING OBJECTIVES.** Given person(s) to be trained and a lesson plan, instruct person(s) in the proper deployment and safety of the AIR TASER and ADVANCE TASER.

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

1. Pass the written test, and demonstrate sufficient proficiency in the function and use of the AIR TASER or ADVANCED TASER.
2. Understand how the AIR TASER or ADVANCED TASER overrides and controls the central nervous systems of a combatant subject.
4. Know proper finger position for aiming and firing.
5. Be able to reload in a safe and proper manner.
6. Control unit adequately when commanded "Arm - Spark - Off" at random (understands safety switch and trigger fully).
7. Know when the AIR TASER or ADVANCED TASER is armed and ready to fire.
8. Know how to properly check battery power in the Power Handle, remove and reinstall batteries correctly.
9. Know how to utilize the laser sight.
10. Understanding of probe placement.
11. FOR **AIR TASER** CERTIFICATION
  - a. Draw AIR TASER and hit target at 8 foot distance without laser sight activated.
  - b. Draw AIR TASER hit target at 8 feet, reload, hit 2<sup>nd</sup> target at 8 feet with laser sight (time limit 10 seconds)
12. FOR **ADVANCED TASER** CERTIFICATION
  - a. Draw ADVANCED TASER and hit target at 12 foot distance without laser sight activated.
  - b. Draw ADVANCED TASER hit target at 8 feet, reload, hit 2<sup>nd</sup> target at 12 feet with laser sight (time limit 10 seconds)
13. Know how to properly and safely remove probes from subject.

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

**D. 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.

**E. COURSE TIME.**

1. INSTRUCTOR CERTIFICATION COURSE: 8 Hours
2. USER CERTIFICATION COURSE: 4 Hours

## DETAILED OUTLINE

**INSTRUCTOR NOTE:** The visual slides which accompany this lesson plan can be found on the TASER International version CD-ROM version 4.0. To access the presentation, double click on the file "begin\_here" in the root directory of the CD-ROM. Then, click on the "Police" section of the menu to access the training materials resource area. There are two versions of the certification program on this page: one for Microsoft Powerpoint (version 97 or greater) and one which is viewed through your internet browser.

## **INSTRUCTOR CERTIFICATION**

### INTRODUCTION

**ATTENTION GAINER:** 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.

- **Slide 2**  
TASER technology was developed to reduce injuries to officers and suspects by stopping threats from a safe distance.
- **Slide 3**  
Video. "Now we have the technology to stop that individual who is combat trained, mentally deranged, or under the influence of drugs and alcohol."

TRANSITION: Having covered the learning objectives, let's discuss the history and theory behind TASER® Technology and why departments are deploying it.

### 1. BODY

- **Slide 4**

#### A. DEFINITIONS:

**AIR TASER® and ADVANCED TASER® are less-lethal Conducted Energy Weapons that use propelled wires to conduct energy to a remote target, thereby controlling and overriding the central nervous system of the body.**

AIR TASER and ADVANCED TASER are brand names associated with specific Conducted Energy Weapons manufactured by TASER International.

- **Slide 5**

**Instructor's Note:** Give brief overview of slide. Point out how the probes are launched, connecting the wires to the target and conducting the TASER wave energy through the wires into the subject through up to 2" of clothing. 1800 PSI = 1800 pounds per square inch from compressed and inert nitrogen capsules located inside the Air Cartridge. Each cartridge is disposable after firing.

- **Slide 6**

VIDEO OF PROBES LAUNCHING

#### B. TECHNOLOGICAL THEORY - WHY IT WORKS

- **Slide 7**

## 1. History of technology development

- a. 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 men and animals.
- b. Original TASER is a 7 Watt “Stun” system with 86% effectiveness in field use.
- c. 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.
- d. The AIR TASER® was developed 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 based upon the continued research of TASER International. Their combined efforts added immense technological changes and decreased the size and weight of the unit while adding performance enhancements such as controlled cycle time and built-in battery indicators for maximum effectiveness.

### • Slide 8

#### 1. Why it works

- a. **Conducted Energy Weapons** are effective because they override the central nervous system of the human body. The human nervous system communicates by means of simple electrical impulses. The ADVANCED TASER sends out short duration, high voltage electrical waves or TASER-Waves™ or T-Waves that overpower the normal electrical signals within the nerve fibers.

### • Slide 9

- b. 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 one used by the nerves. Hence, 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 TASER-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.

### • Slide 10

- c. In the Gulf War, communications jamming technology immobilized the Iraqi forces, allowing the Allies to obtain victory with minimal loss of life. Conducted Energy Weapons work in the same concept within the human body by jamming the central nervous system and overriding neuromuscular control of the body -- without causing long-term damage.
- d. Result of using TASER technology: The officer gains control of the situation with minimum injuries to the suspect and minimum risk to the officer.

TRANSITION: Having covered the basics of how the system works, let’s discuss the issues of safety and medical risks.

### • Slide 11

**STUN** systems jam the central nervous system with electrical noise. The AIR TASER 34000 is a stun system. This only affects only the sensory nervous system – i.e. stun systems cause a

tremendous amount of noise to be fed into the brain – sensations which can be overwhelming to most people. But stun systems do not cause a direct physical effect.

**Power: 5-15 Watts.**

**EMD** (Electro-Muscular Disruption) systems override the central nervous system **AND** take direct control of the skeletal muscles. The ADVANCED TASER is an EMD system and affects the sensory AND motor nervous system. Like a stun system, EMD systems flood the nervous system with signals. However, these systems go one step further by directly causing the muscles to contract. Hence, even someone whose sensory nervous system is impaired by drugs will have involuntary muscle contractions.

**Power: 16-26 Watts**

**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. EMD systems use a more intense wave-form to directly cause contraction of the muscles and override the central nervous system. Hence the EMD systems not only stun the target, they physically debilitate the target by contracting the muscles.

**At a high level, stun systems effect the sensory nervous system (i.e. it creates very intense sensations which will stun the target) whereas the EMD systems effect the motor nervous system and muscles causing direct physical incapacitation.**

Watts are the key, not volts. The Watts are the “broadcast power” that the weapon transmits into the nervous system of the target. Voltage only measures how far a spark can arc through the air.

- **Slide 12**

**VIDEO DEMONSTRATION OF STUN vs. EMD.**

**INSTRUCTOR'S NOTE:** The test subject in this video was given the goal to reach out and grab the fist in front of him. The probes were taped to his lower chest and upper thigh. You can hear the energy sparking on the film for both systems. This is an exceptional individual. The stun systems stop 86% of combatants. However, it is important that students see what happens when you run into the 14% of the population who are not incapacitated by the 7 Watt systems. When deploying a 7 Watt stun system, it is important that you plan for the worst case scenario. As can be seen in the video, the subject is debilitated and would be vulnerable to a variety of control techniques such as hair control techniques or leg sweeps while being hit. The 26 Watt EMD has a much stronger, physically incapacitating effect.

- **Slide 13**

C. MEDICAL SAFETY AND FINDINGS

1. It's not the Volts that are dangerous, it's the amps.
2. The electrical output of the AIR TASER and ADVANCED TASER is 50,000 Volts. The voltage may seem high, however, the amperage on both systems is well below safe limits.
3. AIR TASER amperage is 57mA Irms. (57 mA = 0.057 Amps)
4. ADVANCED TASER M26 is 162mA Irms. (162 mA = 0.162 Amps)  
Irms is Root Mean Square Body Current and is one of several ways of measuring current.  
Hence 57 mA Irms = 57 milliamps root mean square body current.

**INSTRUCTOR'S NOTE:** Water does not affect the output of the AIR TASER or ADVANCED TASER. The amount of energy out of the weapon is determined inside the weapon, regardless of target conditions. The president of TASER International was shot with the AIR TASER while standing in a pool of water to demonstrate this effect. The weapon is safe to use in rainy or wet conditions.

- **Slide 14**

5. Underwriters' Laboratories, Inc. (electrical fence safety guideline) **proven safe 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. A study performed at the University of Southern California Medical Center concluded that in addition to its non-lethality, the TASER leaves 0% long-term injuries.

- **Slide 15**

3. Tests of **AIR TASER** have found:
  - a. No effect on heart rhythms
  - b. No effect on pacemakers (pacemakers must be designed to withstand cardiac defibrillators)
  - c. No long-term effects
  - d. Minor skin irritation similar to sun burns
  - e. Does not cause urination or defecation

- **Slide 16**

4. Tests of **ADVANCED TASER** have found:
  - a. No effect on heart rhythms  
(tested on animals)
  - b. Tested on over 70 human volunteers
    - 100% incapacitation in less than a second
    - No long-term effects
  - c. The electrical outputs are still well within the safe levels defined by international standards
  - d. Direct muscle stimulation -- causing physical incapacitation
  - e. Minor skin irritation similar to sun burns

- **Slide 17**

5. Heart Failure: In tests performed at the University of Missouri, both the ADVANCED TASER M26 and the AIR TASER 34000 were applied directly to the chest of test animals. Using "worst case" scenarios, two leading experts in cardiac safety found neither system caused interference with the heart rhythms -- even when the animal subjects under test were given drugs which make the heart more susceptible to electrical stimulation.
6. Dr. Paul Hendry, Co-Director of the Pacemaker Clinic at the University of Ottawa Heart Institute concludes that, "With regard to its medical safety (M26), 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."

- **Slide 18**

7. The designs of modern pacemakers withstand the electrical defibrillators several hundred times stronger than TASER pulses from either the M26 or 34000 series.

- **Slide 19**

8. Studies have shown there are no long-term effects from being shot by TASER.
9. A study performed at the University of Southern California Medical Center concluded that in addition to its non-lethality, the 7 Watt TASER leaves 0% long term injuries.
10. Testing of over 120 human volunteers with the ADVANCED TASER also found 0% injuries.

- **Slide 20**

**INSTRUCTOR NOTE:** Instructor to review actual injury data from original TASER TE-86 as deployed at LAPD. This data is from the older model TASER (not manufactured by TASER International), and does not include feature enhancements such as the battery indication and automatic timing in the AIR TASER and ADVANCED TASER.

- **Slide 21**

11. Case Law for **TASER manufactured by Tasertron:** Mateyko v. Felix (1997), awarded \$19,680 for inadequate training. (No existing case law concerning TASER International as of 10/99)
  - a. TASER International has never been sued for product liability (with over 100,000 units sold since 1995).
  - b. No deaths contributed solely to TASER (other factors such as gun shot wounds or drug overdoses are seen in autopsy reports).
  - c. One death occurred due when shot on rooftop of skyscraper and fell to the ground -- subject shot with TASER while standing near edge of roof.

\*\*\*\* Break \*\*\*\*

- **Slide 23**

**Use Of Force**

D. Force Continuum

1. 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 assist departments in developing a sound policy.
2. Highlight placement of AIR TASER or ADVANCED TASER on Continuum
3. Explain why it is placed between on par with chemical sprays (fewer injuries and no aftereffects)

- **Slide 24**

E. Review Department Policies

1. Policy
2. Procedures for treatment of victim shot by AIR TASER or ADVANCED TASER
3. AIR TASER or ADVANCED TASER use of force report review

**INSTRUCTOR NOTE:** During this portion of the training, it is important that the instructor hand out copies of department SOP's to the users and review the content. Also, it is strongly 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 (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.

F. Case Studies

- **Slide 25**

1. Prime Example of Potential Use - CASE 1
  - Chandler PD, AZ Sept. '98
  - 250-lbs. Male
  - Irrate, Out of Control, Unarmed



- Claiming HIV +
  - Small Room, Enclosed Environment
  - Result: In Swarm - Officer Bitten, Suspect Broken Jaw
  - Note: TASER Technology could have significantly reduced injuries to officer and suspect without contamination in a close quarter battle scenario.
- **Slide 26**
    2. Successful Patrol Use - CASE 2
      - Harrison County Sheriff, TX July '98
      - Suicidal Mental Subject
      - Meat Cleaver
      - One hour stand off, suspect charged officers
      - Result: AIR TASER used to disarm and apprehend. No injuries resulted.

- **Slide 27**
  3. Successful Correctional Use - CASE 3
    - Mecklenburg County Sheriff, NC Aug. '98
    - 60 officers injured by inmates in past year
    - Rioting seriously damaged new jail
    - AIR TASER successfully deployed in 6 cell extractions
    - "We now have the most peaceful jail in North Carolina"
    - Laser sights are commonly used now for deterrence without need to fire weapon

#### F. Functional Overview

- **Slide 28**
  1. INSTRUCTOR'S NOTE: **Demonstration:** Review probe placement as it relates to ballistics. (8 degree spread)
    - a. Use foil target
    - b. Fire AIR TASER w/Laser

**INSTRUCTOR NOTE: For any department which has used older TASERS, note that the 8 degree spread provides increased effective range relative to the older 12 degree spread in the original model.**

- **Slide 29**
  - c. Demonstrate AIR TASER or ADVANCED TASER back-up touch stun.
  - d. Point out that AIR TASER or ADVANCED TASER will always fire a live cartridge, if there is a live cartridge in place. Both units can be used as a touch stun system with an expended cartridge in place, or without a cartridge in place.

Both the AIR TASER 34000 and the ADVANCED TASER M26 have the same touch stun feature (except for the duration of the pulse – 30 seconds in AIR TASER and 5 seconds in ADVANCED TASER M26).

#### **2. Function and Familiarization**

- a. Nomenclature (Overhead)

- **Slide 30**

Review AIR TASER 34000 Nomenclature

- **Slide 31**

Review ADVANCED TASER M26 Nomenclature

- **Slide 32**

- b. Load Status – demonstrate both 34000 and M26.

- **Slide 33**

- c. Air Cartridge Types - *Color of blast door determines if live, practice or inert.*

1. Yellow is Live 15 Foot Cartridge
2. Yellow and Black Stripe is live 21 Foot Cartridge
3. Blue and Black (empty) is a non-functioning inert dummy cartridge. However, the front of the Air Cartridge is live touch stun contact.
4. Pressure release buttons
5. Reversible design – cannot jam cartridges

**INSTRUCTOR NOTE: Hand out units for students.**

- **Slide 34**

- d. Installing Battery in Model 34000

1. **Prior to installing or removing the battery, ensure the Air Cartridge has been removed.**
2. Demonstrate how to install battery (open/close battery cap). **Warning, do not “smash” or “hit” battery cap into place as it may damage the battery catch.**
3. **Only use Energizer or Duracell ULTRA 9V batteries.**

- **Slide 35**

- e. Installing Battery Magazine in M26

1. **Prior to installing or removing the battery, ensure the Air Cartridge has been removed.**
2. Depress battery cover pin
3. Slide cover out
4. Load battery magazine
5. Insert with contacts properly aligned
6. Slide cover in place
7. Only use Duracell ULTRA AA batteries

- **Slide 36**

- f. Remind students of finger placement on 34000 - forefinger must be kept behind Finger Guard (The trigger finger is not a concern on the M26)
  - g. Have students arm AIR TASER or ADVANCED TASER (ALL UNITS SHALL BE UNLOADED)

- **Slide 37**

- g. Practice arming and triggering the stun function, and shutting off the AIR TASER. **(Instructor Demo)**

- **Slide 38**

- h. Review battery checker indicator.

If the LED light is pulsing, the battery is okay. If the LED light is flat-line, without a pulse, the battery is unhealthy and shall be changed. The red LED light stops pulsing when the charge drops below 70%. If there is no light it all or is barely visible, the battery is dead.

**INSTRUCTOR NOTE:** The battery indicator is calibrated for standard alkaline batteries. The battery indicator will not function properly with rechargeable batteries.

- **Slide 39**

- i. BATTERY SELECTION

1. Rechargeables (NiCad or NiMH) give the strongest output. But they must be recharged weekly. Uncharged batteries will cause weapon failure.
2. Alkaline batteries are much more reliable. However, the selection of the battery is VERY important. There are only two batteries recommended for optimal performance: the DURACELL ULTRA series and the ENERGIZER ADVANCED FORMULA.

**INSTRUCTOR NOTE:** In a perfect world, you will get a little more power out of the rechargeable NiCad or NiMH batteries. Both of these batteries are available at Radio Shack. 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, we strongly recommend Alkaline batteries.** They are much more reliable and can be left in the unit for months at a time without problems. If you are going to use rechargeables, you must check that they are charged up weekly. This requires 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.**

**For normal patrol use, DURACELL ULTRA alkaline batteries are the most reliable solution.**

- **Slide 40**

- j. APPROVED BATTERIES

1. DURACELL ULTRA is the #1 recommended battery for the M26. **Be very careful that you get the ULTRA, not the regular Duracell!** You must check for the blue band around the middle of the battery indicating it is the new ULTRA series.
2. ENERGIZER ADVANCED FORMULA is the #2 recommended battery for the M26. Again, you must be very careful that you get the ADVANCED FORMULA, not the regular Energizer. The only way to know for sure is to look for the Red Arc under the ENERGIZER logo – this will verify it is one of the ADVANCED FORMULA batteries. If there is a simple gold line under the logo instead of the Red Arc, then it is one of the regular Energizer batteries and it will not perform as well.

**INSTRUCTOR NOTE:** The DURACELL ULTRA performs about 10% better than the ENERGIZER ADVANCED Formula. For this reason, the company strongly recommends the DURACELL ULTRA.

- **Slide 41**

- k. Review Automatic Timing

1. Increases effectiveness (stops accidental trigger release)
2. AIR TASER:

- a) Safety breaks for breathing
  - b) 7.5 on - 1.5 off - 3 on - 1 off - 3 on - 1 off . . . 30 seconds total
3. ADVANCED TASER:
- a) 5-second discharge

**INSTRUCTOR NOTE: Demonstrate the timing cycle on each unit.**

- **Slide 42**

**Drill 1:** Instructor will tell the class to arm, spark and shut off the units as a group. Watch for anyone having trouble keeping up with the class or who hold the unit with their finger forward of the finger guard along the frame. (i.e., the student whose AIR TASER or ADVANCED TASER continues sparking for more than a second or two after instructed to turn them off.)

**Use three commands, “Arm, Spark, Off.” Take officers’ through at least eight cycles of “Arm, Spark, Off,” or until every officer is comfortable with the switch operation.**

\*\*\*\* Break \*\*\*\*

- **Slide 44**

- I. Loading Procedure

1. Demonstrate how to load Air Cartridge -- make sure safety is forward.
2. When replacing Air Cartridges check the back for expiration date (5-year shelf life).
3. Expired Air Cartridges may be used for training, but should never be deployed. Officers should turn-in expired Air Cartridges to a supervisor.
4. Safety Precautions
  - a. Safety in safe position
  - b. No fingers or hand in front of blast doors (hold by pressure release buttons)
  - c. Point away from other officers and self
5. Practice loading

- **Slide 45**

- m. Aiming (use dummy cartridge)

**M26**

1. Fire using same muscle motions as firearm
2. Fin and Blade and laser sighting aids

**AIR TASER 34000**

1. It is NOT designed to be fired like a firearm. Shooting the AIR TASER like a handgun will usually result in shooting too high. **POINT and SHOOT**
2. Finger placement. Don't use finger straight along frame and place behind Finger Guard
  - a) Show proper grip - “Handshake Grip” – Flashlight style grip.
  - b) Show wrong grip - “Warn Them”

**BOTH SYSTEMS:**

1. Use laser sight

2. The top probe will impact within 1 and 1/2 inch of laser dot
3. Desired target (upper chest or back)
4. Shooting in back is preferred: clothing is usually tighter, and it eliminates any risk of eye injury

- **Slide 46**

n. Review 8-degree downward spread of bottom probe.

1. When fired, the top probe impacts at point of aim. The top dart travels at an 8-degree angle downward. The spread between probes increases the further you get from your target.

**Spread / Distance Chart**

<b>Distance To Target (feet)</b>	<b>2'</b>	<b>5'</b>	<b>7'</b>	<b>10'</b>	<b>15'</b>	<b>21'</b>
<b>Spread (inches)</b>	<b>3"</b>	<b>8"</b>	<b>12"</b>	<b>17"</b>	<b>25"</b>	<b>35"</b>

2. Ideally, the optimum shot for effective shooting is 7 to 10 feet from the target
4. Maximum distance is 21 feet

**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 unit 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-Wire. Therefore, shots should have ample "slack" for the person to fall to the ground without break the wires. If there are any Air Cartridges with wires, pass the wire around the room and have the officer break the wires to demonstrate how thin the copper clad insulated TASER-Wire is.

- **Slide 47**

o. Do not tilt the 34000 or M26 while firing, as this will cause the bottom probe to fire wide of target.

- **Slide 48**

**Drill 2:** Pair Officers together. One student should aim his AIR TASER at an imaginary person in front of him while the other officer stands off to the side. The second officer should check for hand positioning, ensuring that the top line of the AIR TASER is level and parallel to the ground.

After an officer has had an opportunity to practice aiming 10 times, have the officers' switch positions and repeat the drill.

Once all officers have completed the drill, repeat the drill. This time, have the officers' use the laser sight.

- **Slide 49**

**Test Firing the AIR TASER or ADVANCED TASER**

Set up a practice target on a cardboard, corkboard or dry wall area or use a firing range. Make sure there are no metal objects behind the target or right around it that the probes could bounce off it. Have each student come to the front of the classroom and form a single file line. They should bring their own power handle, but NO LIVE AIR CARTRIDGES.

**Drill 3:** Have the first student demonstrate proper aim of the unit with no Air Cartridge in place. Have students activate and deactivate the unit to show an understanding of the switch functioning. Once the instructor is comfortable that the student is ready, hand him a an Air Cartridge and fire at the target from a

distance of two meters (seven feet). Also, have each student walk up to the target and press the AIR TASER or ADVANCED TASER against the target to simulate the touch-stun mode.

**The instructor needs to hang a fresh target every 12 shots or so.** This is because the T-Waves actually de-metalize the target. As the T-Waves penetrate the target and cause the metallization to evaporate, the target loses its conductivity. **Once the target loses its conductivity, the TASER wire will begin to short circuit and spark between the wires. This is by design – the T-Wave energy must go somewhere or else it could burn out the unit. Hence, if there is no conductive target, the wires will electrically short to release the energy. This will not happen when the probes are in a conductor (like a human target).** The only time the wires will spark is when there is no conductive or human target on the other end. *Running the AIR TASER or ADVANCED TASER old targets that have been de-metalized can potentially destroy the AIR TASER or ADVANCED TASER unit by causing shorts in the TASER Wire or the Air Cartridges.*

TRANSITION: Having shot the AIR TASER and ADVANCED TASER, let's review the probe ballistics in flight.

G. Practical Application

- **Slide 50**

1. Review of "Old" TASER Dart – Probes

Click on video to start. Point out the instability of top dart. These videos are extremely high speed images used to slow down the action for detailed analysis.

- **Slide 51**

2. Review of Short Experimental Dart – Probes

Click on video to start. This probe design was an experimental prototype used to illustrate why the AIR TASER and ADVANCED TASER use a longer Dart – Probe. Notice the high degree of instability in flight.

- **Slide 52**

3. Review of AIR TASER / ADVANCED TASER Dart – Probes

Click on video to start. TASER International developed a longer Dart – Probe to increase stability and accuracy in flight. Notice the drastically reduced wobble.

- **Slide 53**

4. Review of AIR TASER Accuracy in high wind conditions

Click on video to start. The video shows three levels of wind conditions at 20 feet:

Wind Speed	Projectile Drift
40-60 Mph	1"
60-80 Mph	4-5"
100-120 Mph	6-7"

H. Tactical Considerations --

**(PLEASE SEE CHANDLER POLICE DEPARTMENT CD-ROM POWERPOINT PRESENTATION ON TACTICAL CONSIDERATIONS)**

- **Slide 54**

Demonstration of clothing penetration. The electric arc from the ADVANCED TASER can penetrate over 2.5" of clothing.

- **Slide 55**

1. General Tactical Considerations

- a. Use common sense
- c. Required back up with lethal force
- d. Use cover and distance to ensure officer safety
- c. Enclosed environments / Close quarters
- d. Use to avert violent confrontation
- e. If target is running, officer must run with the subject to prevent TASER-Wires from breaking.

- **Slide 56**

2. **ONLY FIRE (C.E.W.) TO STOP A THREAT.**

- a. The AIR TASER or ADVANCED TASER should only be used to stop a threat. This would include threats to the officer's safety, threats to others, or even if the suspect is posing a threat of injuring himself. It should never be used for coercion of any type. The AIR TASER or ADVANCED TASER gives you a non-injurious way of averting dangerous situations.
- b. The department should develop strong policies to deter misuse.
- c. Discussion

The main point to realize when talking about the actual deployment and use of the AIR TASER or ADVANCED 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 our use of force continuum. The AIR TASER or ADVANCED 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 AIR TASER or ADVANCED TASER unit must be backed up with the availability of lethal force. The AIR TASER or ADVANCED TASER is not a substitute for lethal force. It is an alternative to other less-lethal applications of force. It should be considered by police supervisors as an option in cases where other less-lethal uses of force are being considered.

The AIR TASER or ADVANCED TASER can be 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 suspects. The AIR TASER or ADVANCED TASER is likely to have more of an incapacitating effect on most individuals compared to chemical agents. The AIR TASER or ADVANCED TASER is not a foolproof weapon. When used within the design parameters of the device, the AIR TASER is a very effective, less-lethal, control device. Admittedly, the window of operation of the AIR TASER is restricted to from 3-21 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 AIR TASER or ADVANCED TASER can fill the gap between less-lethal munitions and hands on control techniques.**

- d. **Animals:** the AIR TASER and ADVANCED TASER are not recommended for use against animals. They may be effective, but are unproven for animal use.

- **Slide 57-58**

3. Review AIR TASER or ADVANCED TASER Strengths & Weaknesses

<u>Characteristic</u>	<u>Strength</u>	<u>Weakness</u>
0-21 Foot Range	<ul style="list-style-type: none"> <li>• Good For Close Quarters (where impact rounds are dangerous)</li> <li>• Rounds stop after 21 feet -- no errant shots hitting people</li> </ul>	<ul style="list-style-type: none"> <li>• Not Appropriate for outdoor situations from ranges greater than 21 feet.</li> </ul>
No Contamination	<ul style="list-style-type: none"> <li>• Good for Close Quarters</li> <li>• Indoor use OK (domestic disputes etc.)</li> <li>• Clean transport of suspect</li> <li>• Selective Targeting</li> </ul>	<ul style="list-style-type: none"> <li>• Cannot use for crowd dispersion</li> </ul>
2 Inch Clothing Penetration	<ul style="list-style-type: none"> <li>• Can Penetrate Leather, or other materials</li> </ul>	<ul style="list-style-type: none"> <li>• Look out for loose, hanging clothes where probes could hang more than 2" from skin</li> </ul>
Fires Probes	<ul style="list-style-type: none"> <li>• Minute wind effect</li> <li>• Creates safe range of 21 feet</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid eye shots</li> </ul>
Interference with nervous system	<ul style="list-style-type: none"> <li>• Allows shot anywhere on the body to be effective</li> <li>• Instantaneous response</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

- **Slide 59**

4. What AIR TASER or ADVANCED TASER might do:

- Might cause slight surface burns
- If placed in direct contact with a pacemaker, could momentarily affect it
- Could ignite gasoline fumes and other flammable or combustible environments
- Can cause eye injury if shot too high
- Can cause secondary injuries from falling

- **Slide 60**

5. What AIR TASER or ADVANCED TASER won't do:

- Does not damage nervous tissue
- No effect on cardiac rhythm or pumping
- Does not cause serious burns
- No reports of an AIR TASER or ADVANCED TASER causing death
- Does not cause urination or defecation

- **Slide 61**

6. Review after effects:

- Dazed for several minutes
- Involuntary muscle contractions
- Vertigo



- d. Momentary unconsciousness possible
- e. No permanent damage

- **Slide 62**

- 7. Treatment:

- a. Once in custody, advise Paramedics or ER staff
    - b. Point out puncture sites, as needed
    - c. Only ER staff to remove probes embedded in sensitive tissue areas, i.e., neck, face & groin
    - d. Removal from other areas discretion of on scene supervisor -- See Dept. policy
    - e. THESE POLICIES WILL VARY DEPENDING BY DEPARTMENT

- **Slide 63**

- 8. What to do following Use:

- a. Apprehend after the threat is disabled
    - b. **Can** touch subject while AIR TASER or ADVANCED TASER is live
    - c. **Do not touch probes**, within 2 inches of probes, or between probes while unit is live
    - d. Do not step on wires
    - e. Have photographs taken of injuries & place into evidence
    - f. Expended munitions shall be collected & placed into evidence

- **Slide 64**

- 9. Handling Used Cartridges:

- a. Probes which have penetrated the body should be treated as contaminated needles.
    - b. Carefully place probes sharp-tip first back into the cartridge bores, secure in place, and place in needle container.

- **Slide 65**

- 10. Care:

- a. Avoid dropping - Sensitive, electronic, costly device
    - b. Check batteries regularly
    - c. Use only DURACELL ULTRA AA or Energizer 9V alkaline batteries (unless extreme cold)
    - d. Secure when not in use
    - e. Keep in protective holster, when not in use
    - f. DO NOT STORE IN POCKETS

- **Slide 66**

- 11. Weapon tracking technologies

- a. Purpose: to prevent abuse and protect officers from unfounded allegations through solid documentation of usage.
    - b. AFID: 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. Officers should be aware that this system will allow the department to trace users who are not following department policy and are using the AIR TASER or ADVANCED TASER inappropriately.
    - c. Dataport: The dataport connects the ADVANCED TASER to a computer. The ADVANCED TASER stores the time and date of every time it is fired. By downloading this data, the department can monitor usage patterns. Every officer who is issued an ADVANCED

TASER must be able to account for every firing of the unit. The idea is to protect officers from false allegations of misuse by proving exactly how many times and when the unit was discharged.

- **Slide 67**

12. Hand Out Warnings Sheet and Review

- **Slide 68**

13. Review any questions with class.

Outline Questions:

1. *Should the AIR TASER or ADVANCED TASER be used on a person threatening himself with a firearm?*

The AIR TASER or ADVANCED TASER can certainly be deployed in this circumstance; however, it is mandatory to deploy lethal weapons in this case. Remember that the ideal range for deployment of the AIR TASER or ADVANCED TASER is 7-10 feet with a maximum of 21 feet. This is too close to be relied on and it is poor tactical judgment to confront an armed person at that range without lethal force being immediately present. It is not recommended that officers place themselves in a position to use the AIR TASER or ADVANCED TASER when confronting an armed person.

2. *Should the AIR TASER or ADVANCED TASER be used on a person threatening another person with a firearm?*

As stated in the previous scenario, the AIR TASER or ADVANCED TASER could be effective in this case -- perhaps even more so. Remember that when the armed individual is present, lethal force must be present to counteract that threat. In a "hostage" situation suggested here, the AIR TASER or ADVANCED TASER could be used as a less-lethal option. The suspect could be disarmed by the use of the AIR TASER or ADVANCED TASER but not without certain officer safety considerations. It is not recommended that the AIR TASER or ADVANCED TASER be used in this circumstance.

3. *Should the AIR TASER or ADVANCED TASER be used on a person armed with an edged weapon?*

This situation may be more suited to the deployment of the AIR TASER or ADVANCED TASER. If an officer can discharge the AIR TASER or ADVANCED TASER from a position of cover, inside the effective range of the unit, this maybe a method of diffusion with the minimum force necessary. Remember this situation demands that lethal force/lethal cover is present before confronting a suspect. Remember the "21 foot" rule for confronting suspects armed with edged weapons.

4. *Should the AIR TASER or ADVANCED TASER be used on a person armed with a broken bottle?*

If we treat a suspect armed with a bottle in the same manner as one armed with and edged weapon, the answer is yes, with the proper office safety measures. This situation is likely to be less threatening than confronting a person with a handgun, due caution needs to be applied.

5. *Should the AIR TASER or ADVANCED TASER be used on a person under the influence of alcohol or drugs?*

The AIR TASER or ADVANCED TASER can be used in this circumstance without fear of permanent injury to the suspect. AIR TASER or ADVANCED TASER will, in most cases, be more effective on an unruly or defiant suspect than more traditional chemical agents and hands on control techniques.

6. *Should the AIR TASER or ADVANCED TASER be used on a person holding a hostage adult or child?*

The AIR TASER or ADVANCED TASER can be very useful in this circumstance. Remember that the electrical charge felt by the suspect is not transferred to another person simply by body to body contact. It is important to note however that if you place your hand or any other part of your body on the suspect's body, in an area between the two probes, while the unit is activated, you may receive a comparable charge.

*7. Should the AIR TASER or ADVANCED TASER be used on a person outdoors in a wet environment?*

As demonstrated in the training video, the AIR TASER or ADVANCED TASER can be safely deployed in a wet environment. The manufacturer deployed the unit on a person who was standing in a one-foot deep swimming pool with no adverse effects. Remember, if both probes do not come into contact with the suspect, performance of the unit will be effected. If one probe lands directly in a wet environment surrounding the suspect, the charge can also effect the immediate terrain around the suspect.

*8. Should the AIR TASER or ADVANCED TASER be used on a person that has been exposed to flammable liquids?*

We have encountered individuals in the past that have been in enclosures that have been saturated with gasoline and gasoline fumes. It is scientifically possible that the sparking action of the deployed AIR TASER or ADVANCED TASER unit could ignite gasoline fumes and other flammable or combustible environments. Therefore, the AIR TASER or ADVANCED TASER will not be deployed in this circumstance.

*9. Should the AIR TASER or ADVANCED TASER be used on a person that has been exposed to Pepper Spray?*

You must know whether your department uses pepper spray or chemical sprays that are alcohol based versus non-alcohol based. If the spray, is alcohol based, then the AIR TASER or ADVANCED TASER should not be used. If the spray is non-alcohol based it is not a flammable substance. It is not combustible by electrical charges generated by the AIR TASER or ADVANCED TASER unit. The AIR TASER or ADVANCED TASER can be safely used in this application and maybe the next logical step in the use of force after chemical agents have failed. However, you must make sure the chemical agent used is not alcohol based. A good safety check is to deploy the spray against a paper grocery sack in a fire safe environment with fire extinguishers handy. Saturate the bag with the spray. Fire an Air Cartridge from a safe distance away and determine if the bag catches fire. Also, request the MSD (Manufacturer Specification Definition) from the manufacturer of the spray and check for alcohol or isopropyl alcohol as a carrier or ingredient to ensure non-flammability.

*10. Should the AIR TASER or ADVANCED TASER be used on a person that has been exposed to water i.e.: wet clothing?*

The unit can be used safely and wet clothing will not magnify the intensity of the current generated.

*11. Should the AIR TASER or ADVANCED TASER be used on a person that is fleeing from officers?*

AIR TASER or ADVANCED TASER is a less-lethal munition. It can be deployed in any circumstance that other uses of force, such as hands on techniques, chemical agents, or less-lethal munitions (Bean Bag) can be used. The answer to this question is yes, but the officer needs to run with the subject or the wires will be stretched beyond 15 feet as the person flees or falls.

*12. Should the AIR TASER or ADVANCED TASER be used on a person where other munitions or technique have failed?*

This unit is intended to be another tool in our toolbox of means and methods to stop and control violent and potentially violent persons. As in your prior training with other uses of force, we will use the force necessary to counteract the threat. If this device hasn't been deployed and it is available, it is within the scope of our force continuum to deploy it.

13. *Should the AIR TASER or ADVANCED TASER be deployed on persons that have only refused to submit to arrest and have not violently resisted arrest?*

Again, common sense and evaluation of the scenario will dictate if the use of the device is advisable. The suspect will sustain no permanent injury, if the unit is used properly. It is likely to be better to remove the possibility of injury to both suspect and officers by deploying the AIR TASER or ADVANCED TASER, as opposed to getting involved in a physical melee with the offender.

14. *Should the AIR TASER or ADVANCED TASER be used on a pregnant female or elderly person?*

It is not advisable to deploy the AIR TASER or ADVANCED TASER in these circumstances unless all other means short of lethal force have been used. There are some increased medical ramifications for persons in these conditions that should preclude the use of this device from a practical and liability perspective.

15. *Should I carry the AIR TASER or ADVANCED TASER or Air Cartridges in a pocket?*

No. The AIR TASER or ADVANCED TASER and Air Cartridges should only be carried in holsters or cases designed to properly protect the units during transportation.

Segment Conclusion:

The AIR TASER or ADVANCED TASER can be effective in many circumstances we encounter. Like all other use force issues, it should not be totally relied upon with the exclusion of all other options. It should however, when AIR TASER or ADVANCED TASER is used responsibly, it can be a powerful and very effective tool to keep everyone safer.

- **Slide 69**

14. Review Key Concepts

- **Slide 70**

15. Concluding Thought: Defining Non-Lethal Weapons

U.S. Department of Defense policy defines non-lethal weapons as "weapon systems that are explicitly designed and primarily employed so as to incapacitate personnel or materiel, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. . ."

It is important to note that Department of Defense policy does *not* require or expect non-lethal weapons "to have a zero probability of producing fatalities or permanent injuries." Rather, non-lethal weapons are intended to *significantly reduce* the probability of such fatalities or injuries as compared with traditional military weapons which achieve their effects through the physical destruction of targets.

**Joint Concept for Non-lethal Weapons  
United States Marine Corps**

INSTRUCTOR 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.

**SUMMARY:** During this period of instruction we have covered the nomenclature, usage, medical safety, and policies for use of force of the ADVANCED TASER and AIR TASER Conducted Energy Weapons.



## AIR TASER® Pre-Deployment Checklist

### Develop Department Deployment Policy

An example policy is included on the TASER International CD-ROM. While this policy 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

An example policy is included on the TASER International CD-ROM. While this policy 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 AIR 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 AIR 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 AIR 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 AIR TASER / ADVANCED TASER Certifications

All officers must pass certification course prior to deployment of AIR TASER. Signed certification test must be kept on file for all officers using the AIR TASER. All certified officers should receive printed copies of the following documents at time of certification:

- Department Deployment Policy
- Use of Force Guidelines
- Supervisory AIR TASER Use Report

### Establish File for AIR TASER Use Reports

Every use of the TASER technology should be documented using the department's established report (as modeled in the training manual). If possible, part of the filing procedure should include a fax of the report to TASER International to assist in establishing a national usage database which will be submitted to the International Association of Chiefs of Police Use of Force Database. Fax to 480-991-0791, attn: Law Enforcement Affairs. **Please mark reports as confidential and strike names as appropriate.**



## TASER® International 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 AIR 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 Instructor 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 a minimum of four (4) Air Cartridges**  
The user must fire a minimum of 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 8 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.

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 four (4) Air Cartridges**  
The user must fire a minimum of 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 8 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.

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## AIR TASER Certification Test

**PRINT LEGIBLY AND CLEARLY PLEASE!**

Name: \_\_\_\_\_ Dept / Company: \_\_\_\_\_

Rank: \_\_\_\_\_ Training Date & Location: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

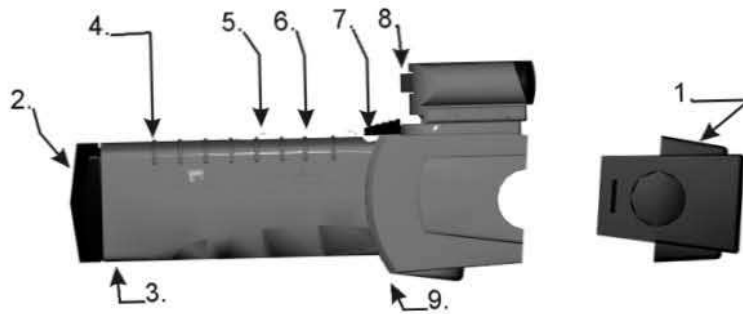
1. The AIR TASER or ADVANCED TASER should be aimed at:
  - A. Face
  - B. Center of body mass
  - C. The legs
  - D. The head and neck
2. The red pulsing light on the AIR TASER / ADVANCED TASER handle indicates:
  - A. The battery should be replaced.
  - B. The battery is good and the AIR TASER / ADVANCED TASER is ready to deploy.
  - C. There is a malfunction
  - D. The unit is off.
3. The maximum effective range of the AIR TASER / ADVANCED TASER is.
  - A. 8 feet.
  - B. 13 feet.
  - C. 21 feet.
  - D. 25 feet.

4. After deploying the AIR TASER / ADVANCED TASER upon the threat?
  - A. Immediately turn the unit off.
  - B. Allow the firing cycle to continue until the threat is disabled.
  - C. Use the unit as a stun gun if the probes miss the threat.
  - D. Both B and C.
5. The **AIR** TASER's timing cycle is for what duration?
  - A. 1 minute.
  - B. 30 seconds.
  - C. 25 seconds.
  - D. 10 seconds.
6. The **ADVANCED** TASER's timing cycle is for what duration?
  - A. 1 minute.
  - B. 30 seconds.
  - C. 15 seconds.
  - D. 5 seconds.
7. True or False: The AIR TASER / ADVANCED TASER may be used as a stun gun with an unfired Air Cartridge in place?
8. True or False: The AIR TASER operates at 50,000 Volts.
9. True or False: The AIR TASER / ADVANCED TASER may be used on threats under the influence of alcohol and mind altering drugs.
10. True or False: The AIR TASER / ADVANCED TASER probes must break the skin to work.
11. True or False: The AIR TASER / ADVANCED TASER automatic timing cycle cannot be stopped during operation.
12. True or False: The AIR TASER / ADVANCED TASER's recommended firing distance is 7-10 feet.
13. True or False: The AIR TASER is designed as a "point and shoot" system.
14. True or False: The AIR TASER (7 Watt stun system) is designed to interfere with the **sensory** nervous system only.
15. True or False: The AIR TASER / ADVANCED TASER's live cartridge has a yellow colored front.
16. True or False: The AIR TASER / ADVANCED TASER can be manually shut off during the firing cycle.
17. True or False: The AIR TASER is recommended for use against animals.
18. True or False: The AIR TASER / ADVANCED TASER fires its bottom probe at a 12-degree downward angle.
19. When using the AIR TASER / ADVANCED TASER in conjunction with aerosol sprays, the following must be considered:
  - A. Type of propellant and base of chemical or pepper spray.
  - B. If the threat has been sprayed in the eyes.
  - C. If the threat is not reacting to the chemical spray.
  - D. The body weight of the target.

20. If the threat is standing in water when the AIR TASER / ADVANCED TASER is deployed:
- A. The AIR TASER / ADVANCED TASER 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 AIR TASER / ADVANCED TASER will work properly.
21. The AIR 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 AIR TASER's 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 AIR TASER / ADVANCED TASER's long-term effect on the threat is:
- A. Possible intermittent seizures.
  - B. Temporary, unexpected blindness.
  - C. None.
  - D. Nervous twitches.
24. The T-Waves of the AIR TASER / ADVANCED TASER are effective:
- A. Through up to two inches of clothing.
  - B. Through soft body armour.
  - C. Through lightweight clothing.
  - D. All of the above.
25. The AIR TASER affects the:
- A. Urinary tract
  - B. Sensory nervous system
  - C. Sensory and motor nervous systems
  - D. Cardiac system
26. The ADVANCED TASER affects the:
- A. Urinary tract
  - B. Sensory nervous system
  - C. Sensory and motor nervous systems
  - D. Cardiac system

Explain the proper way of deploying **either** the AIR TASER or ADVANCED TASER at a threat (150 words or less or by bullet-points) from deployment through arrest:

**NOMENCLATURE**  
**Identify the parts of the AIR TASER**



Write the corresponding number next to each description below:

Numbers 5 and 6 are interchangeable.

- A. Trigger \_\_\_\_\_
- B. Battery Catch \_\_\_\_\_
- C. Air Cartridge \_\_\_\_\_
- D. Laser Switch \_\_\_\_\_
- E. Safety Slide \_\_\_\_\_
- F. Battery Cap \_\_\_\_\_
- G. Finger Guard \_\_\_\_\_
- H. Battery Check \_\_\_\_\_
- I. Ribbed Grip \_\_\_\_\_

**ADVANCED TASER NOMENCLATURE**  
**Identify the parts of the ADVANCED TASER**



- J. Trigger \_\_\_\_\_
- K. Battery Cover \_\_\_\_\_
- L. Air Cartridge \_\_\_\_\_
- M. Dataport \_\_\_\_\_
- N. Safety \_\_\_\_\_
- O. Battery Cover Pin \_\_\_\_\_
- P. Fin & Blade Sight \_\_\_\_\_
- Q. Built-in Laser \_\_\_\_\_
- R. Battery Indicator \_\_\_\_\_

When you have completed this test, please deliver it to your instructor.

TASER INTERNATIONAL  
Final Examination

Name: \_\_\_\_\_  
Dept.: \_\_\_\_\_

**When you have completed this test, deliver to your instructor.**

**INSTRUCTOR USE ONLY:**

Number of Answers Correct: \_\_\_\_\_ out of 44. (80% minimum = 35 correct answers)

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

\_\_\_\_\_ Demonstration of proper finger position for aiming and firing.

\_\_\_\_\_ Reload AIR TASER or ADVANCED 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 **AIR TASER** and hit target at 8 foot distance without laser sight activated (time limit 5 seconds). *(Only required if department is deploying AIR TASERs)*

\_\_\_\_\_ Draw **ADVANCED TASER** and hit target at 8 foot distance (time limit 5 seconds). *(Only required if department is deploying ADVANCED TASERs)*

\_\_\_\_\_ Draw **AIR TASER or ADVANCED TASER** (select the unit most likely to be used in the field) hit target at 8 feet, reload, hit 2<sup>nd</sup> target at 8 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 AIR TASER and ADVANCED TASER and is hereby certified as a trained user of these systems.

Attested: \_\_\_\_\_ Dated: \_\_\_\_\_  
Certified Instructor

***Maintain file copy of this certification in department records.***

Certification Test

ANSWER SHEET

**DO NOT WRITE ON TEST BOOKLET**

1. B
2. B
3. C
4. D
5. B
6. D
7. FALSE
8. TRUE
9. TRUE
10. FALSE
11. FALSE
12. TRUE
13. TRUE
14. TRUE
15. TRUE
16. TRUE
17. FALSE
18. FALSE
19. A
20. D
21. B
22. B
23. C
24. D
25. B
26. C

Depending on department policy, answers should correspond to the general answers below:

- Identify threat if acceptable for use of an AIR TASER (child, pregnant, elderly, etc.)
- Determine situation use of force.
- Call for backup, "Code Zebra"
- Pull AIR TASER from holster with live yellow Air Cartridge.
- If Air Cartridge is black and yellow, range is 21 feet. If Air Cartridge is yellow, range is 15 feet.
- Give strong verbal instructions to threat to stop actions.
- If not cooperating, slide safety back.
- Check battery level – blinking red LED.
- Aim AIR TASER (actuate laser if on the unit) at upper back or chest.
- Give instructions again for threat to stop action (laser sight may cause capitulation).
- If not cooperating and still a threat, press actuator.
- Ensure target falls to ground or is incapacitated.
- Closer can apprehend threat or if by oneself, the AIR TASER can be place on the ground and apprehended by the shooting officer (careful not touch threat with hands between the probes.)
- Push safety forward when use of force is complete or suspect has cooperated.
- Reload AIR TASER with new Air Cartridge and return to holster.

## NOMENCLATURE ANSWERS

### AIR TASER:

- A. 7. Air Cartridge
- B. 3. Battery Cap
- C. 1. Battery Catch
- D. 8. Ribbed Grip / Handle
- E. 6. Safety Slide OR 5. Battery Check**
- F. 6. Safety Slide OR 5. Battery Check**
- G. 9. Trigger Switch / Actuator
- H. 5. Laser Sight
- I. 4. Finger Guard

### ADVANCED TASER:

- J. 3. Trigger
- K. 7. Battery Cover
- L. 2. Air Cartridge
- M. 6. Dataport
- N. 9. Safety
- O. 8. Battery Cover Pin
- P. 1. Fin & Blade Sight
- Q. 4. Built-in Laser
- R. 5. Battery Indicator





## **TASER International Instructor Application**

**PRINT LEGIBLY AND CLEARLY PLEASE!**

Instructor Applicant Information:

Name: \_\_\_\_\_ Dept / Company: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

WRITTEN CERTIFICATION TEST SCORE EXCEEDED 90% (circle one): **Yes** **No**

A passing score requires that the Instructor Applicant obtain a score of 90% or higher on the written Certification Test.

Further, the individual has been asked to instruct the class in one of the topics listed in the attached KEY COURSE CONCEPTS in detail in front of the class. If there are more than 14 students, topics will be repeated such that every instructor applicant presents. Was the instructor's performance acceptable? (circle one): **Yes** **No**

I hereby certify that \_\_\_\_\_ has passed the AIR TASER Certification Test with a score of greater than 90% and has met the above criteria for sufficient knowledge and presentation skills to safely and comprehensively instruct others in the use of the AIR TASER non-lethal weapon.

Attested by Certifying Instructor: \_\_\_\_\_  
(Signature) (Print Name)

Date: \_\_\_\_\_ Certifying Instructor ID: \_\_\_\_\_

**CERTIFICATION Instructions:**

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

Instructor Certification  
TASER International  
7339 East Evans Road  
Scottsdale, AZ 85260, USA

Maintain a copy of this sheet in your Certification Files as well.

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

# **ORAL PRESENTATION TEST QUESTIONS**

## **ADDRESS CLASS WITH TWO MINUTE ANSWERS**

1. Name the parts of the AIR TASER / ADVANCED TASER (nomenclature) and describe their functions.
2. How does the AIR TASER (a 7 Watt Stun system) immobilize a health adult and what are the effects? How is the immobilization caused by the ADVANCED TASER (a 26 Watt EMD system) different.
3. Discuss the power output of the AIR TASER vs. ADVANCED TASER, battery checker, battery replacement, and types of batteries to be used.
4. Discuss the proper method of loading an AIR TASER / ADVANCED TASER power handle, firing it, aiming point (mention areas that might cause a problem for the AIR TASER to function), and the timing cycle.
5. Discuss the various Air Cartridges, probe flight paths and the wire that comes out.
6. Show the proper aiming techniques for an AIR TASER / ADVANCED TASER shooter against various targets. Discuss cover, range, flight paths, and the ranges of the various types of Air Cartridge.
7. How does the AIR TASER stop and individual? Discuss the TASER Wave. What is different about the ADVANCED TASER?
8. What can an officer reasonable expect when firing an AIR TASER at a subject. Discuss target reactions, possible tactics and how to handle a subject that is attached to probes. Discuss relative tactics with the ADVANCED TASER.
9. Discuss when the AIR TASER / ADVANCED TASER should be deployed under your department's expected guidelines (cover use of force, types of subjects that can be shot by an AIR TASER, and the situations where it may be used).
10. Discuss situations where you can and cannot use the AIR TASER / ADVANCED TASER.
11. Discuss the Pre-Deployment checklist, what procedures should be in place, who should be contacted and why.
12. Discuss the medical considerations of the AIR TASER / ADVANCED TASER. Why is it healthy, what are the short-term effects and its safety issues. Mention cardiac and pacemaker areas and the removal of the probes.
13. Discuss improper techniques that an instructor must watch for during testing and firing. Hand position, aiming technique, improper safety considerations, improper Air Cartridge removal, and improper battery removal.
14. Discuss the differences between a stun system and an Electro-Muscular Disruption (EMD) system.

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***SUPERVISORY  
TASER<sup>®</sup> International USE REPORT***

**Subject's Name** \_\_\_\_\_ **Date/Time** \_\_\_\_\_

**Location** \_\_\_\_\_ **Booked: Y / N**

**Where** \_\_\_\_\_ **Charges** \_\_\_\_\_

**Officer's Name** \_\_\_\_\_ **Sgt.** \_\_\_\_\_

**Lt.** \_\_\_\_\_ **AIR TASER Serial #** \_\_\_\_\_

**Medical Facility** \_\_\_\_\_ **Doctor** \_\_\_\_\_

**OR#:** \_\_\_\_\_ **Fire DR#:** \_\_\_\_\_

**Date of the Incident:** \_\_\_\_\_ **Time of Incident:** \_\_\_\_\_

**Location of the Incident:** \_\_\_\_\_

**Officer(s) Involved:** \_\_\_\_\_

**Nature of the Call or Incident:** \_\_\_\_\_

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

**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:** Drugs / Alcohol

**Summary of the Actions of Officer(s) Involved:** \_\_\_\_\_

**Was an Officer, Police Employee, Volunteer or Citizen Injured?** Y / N

**Incident Type {Circle appropriate response(s) below}:**

Civil Disturbance    Suicidal    Violent Suspect.    Barricade    Warrant Service.    Other.

Age: \_\_\_\_\_ Sex: \_\_\_\_\_ Height: \_\_\_\_\_ Race: \_\_\_\_\_ Build: ( ) Heavy ( ) Med. ( ) Trim

Suspect wearing heaving clothes: Y / N

Actual TASER application: \_\_\_\_\_ Arc Display Only \_\_\_\_\_ Display Only \_\_\_\_\_

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

TASER<sup>®</sup> weapon used: ( ) AIR TASER 34000-series ( ) ADVANCED TASER M-series

Approximate target distance at the time of the dart launch:

\_\_\_\_\_  
Need for an additional shot? Y / N

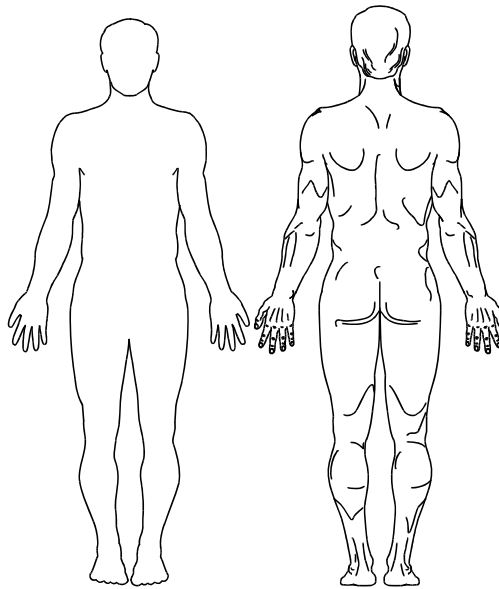
Did dart contacts penetrate the subject's skin? Y / N

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

**DESCRIPTION OF INJURY:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## APPLICATION AREAS - Points of contact



**SYNOPSIS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**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?**

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**Was the subject under the influence of drugs or alcohol? (confirmed by)**

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**Describe the danger present:**

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**Describe other means attempted to control the subject: (If not used, explain)**

**Chemical Spray:**

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**Baton or Blunt Instrument:**

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**Authorized control holds:**

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**Photographs Taken (yes) (no)**

**If not, explain:**

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**Fire Department Report #** \_\_\_\_\_

**Report Completed by:**  
\_\_\_\_\_

***ADDITIONAL INFORMATION***

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September 28, 1999

Cst. John E. McDonald  
Tactical Team Operations  
474 Elgin Street  
Ottawa, ON

RE: ADVANCED TASER.

Dear Cst. McDonald,

Further to our meeting regarding the new advanced Taser system, I believe that the new device is superior to the original Taser system in that it seems to be more effective in controlling violent offenders. With regard to its 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. Once again the risk and benefit ratio must be examined and certainly in the case of a violent offender, it would be favored to use this system regardless of any cardiac condition when compared to the alternative or violent way to incapacitate an offender.

Thank you very much for allowing me to review this system and I hope that it proves to be a useful tool for your tactical team. I would be happy to continue our discussions at any time.

Yours Sincerely,

P. Hendry, M.D., FRCSC  
Division of Cardiac Surgery  
Co-Director Pacemaker Clinic  
University of Ottawa  
Heart Institute

PH/gh