

# ELECTRO-MUSCULAR DISRUPTION TECHNOLOGY

## A NINE-STEP STRATEGY FOR EFFECTIVE DEPLOYMENT



With financial support from the National Institute of Justice, Office of Science & Technology, the International Association of Chiefs of Police intermittently publishes Executive Briefs to inform and educate the law enforcement community on emerging technology issues.

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# **ELECTRO-MUSCULAR DISRUPTION TECHNOLOGY**

## **A Nine-Step Strategy for Effective Deployment**

### **Executive Summary**

Electro-Muscular Disruption Technology (EMDT) is a group of devices that use a high-voltage, low power charge of electricity to induce involuntary muscle contractions that cause temporary incapacitation. More police departments are using EMDT on resisting subjects, with a minimum of serious injuries or lethality. The increased use of these weapons, however, has raised concerns about the safety of EMDT, as well as the liability and risks associated with deployment of products such as those made by the major manufacturers, including TASER®, STINGER®, and Law Enforcement Associates.

To address these deployment concerns, the International Association of Chiefs of Police (IACP)<sup>1</sup> has developed this Executive Brief to inform law enforcement leadership on deployment challenges surrounding this technology. The Executive Brief offers a step-by-step guide to aid law enforcement agencies in selecting, acquiring and using EMDT.

This Executive Brief is an initial analysis of EMDT, focusing not on the technology itself, but rather on the management of the technology. It is intended to help law enforcement leadership develop policies, procedures, and training curricula that are responsive and relevant to the needs of the communities they serve. While research findings and best practice information will continue to evolve in the future, the IACP seeks to make interim technology management information available to federal, state, local, Tribal and other law enforcement agencies.

### **IACP Nine-Step Deployment Strategy**

We have designed a nine-step deployment strategy to aid law enforcement agencies as they select, acquire and use EMDT. The strategy emerged from research conducted to develop this Executive

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Brief, and from lessons learned from various agencies that have already deployed EMDT.<sup>2</sup>

### **Step 1: Build the Leadership Team**

Build an EMDT Leadership Team with members that can address the host of issues relative to acquisition, costs, policies, training, liability and evaluation.

### **Step 2: Place EMDT on the use-of-force continuum**

Determine placement within the local use-of-force continuum based on an assessment of the technology.

### **Step 3: Assess the Costs and Benefits of Using EMDT**

Include an assessment of the costs for EMDT when making a deployment decision.

### **Step 4: Identify Roles and Responsibilities for EMDT Deployment**

Identify the roles and responsibilities of staff with respect to the EMDT deployment plan and the use of EMDT.

### **Step 5: Engage in Community Outreach**

Employ an outreach strategy with key stakeholders and the community. Their acceptance of EMDT is essential to successful deployment.

### **Step 6: Develop Policies and Procedures for EMDT**

Write decisions about use, training, reporting requirements, medical evaluations, legal constraints, and other operational considerations as policies and procedures before deployment of EMDT.

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<sup>2</sup> The following definitions should be referenced for purposes of this Brief:

**Deployment** is defined as distributing the technology to persons or forces in a systematic and/or strategic manner.

**Use** is defined as putting the technology into service (i.e. discharging the weapon).

**Acquisition** is defined as purchasing the technology.

## **Step 7: Create a Comprehensive Training Program for EMDT Deployment**

Create a comprehensive training program that reinforces policies and procedures before deploying EMDT.

## **Step 8: Use a Phased Deployment Approach for EMDT**

Adopt a phased deployment approach for EMDT.

## **Step 9: Assess EMDT Use and Determine Next Steps**

Conduct assessments of EMDT use to determine whether further action will improve future use-of-force outcomes.

## **Summary Observations**

The amount of force necessary to prevent harm to law enforcement, bystanders, or potentially violent subjects is a decision that can have severe implications for officers, suspects, police departments and the public. It is essential that departments provide their officers with appropriate training and tools for these split-second decisions. Whether the tool is verbal communication, a police baton, Oleoresin Capsicum (OC), commonly known as pepper spray, EMDT, or a service weapon, the determination of the reasonableness and justification for use-of-force in a particular situation often must be made quickly by a responding officer. With proper training and equipment, the officer will be better prepared to assess, plan, and act to de-escalate and resolve the situation. Providing access to appropriate tools and training allows police departments to reduce the injuries and deaths to officers, suspects, and members of the public.

The IACP nine-step strategy for deploying EMDT should be used to engage departments and communities in a partnership to develop policies and procedures that reflect public safety priorities and provide clear and concise instructions for using this less-lethal force option.

For those departments across the country that have already deployed EMDT, we urge retroactive review of the nine-step strategy. This review can provide direction for measuring performance and improving policies, procedures, and training in their existing program.

## Introduction

Less-lethal technologies have been developed for law enforcement to reduce reliance on weapons more likely to produce lethal injuries. These less-lethal technologies have met with much success in reducing injuries to suspects and officers while permitting officers to carry out their required law enforcement duties.

In the early 1990's, Oleoresin Capsicum (OC), commonly known as pepper spray, was introduced as a law enforcement use-of-force option. Shortly after its deployment, the IACP, with funding from the National Institute of Justice (NIJ), conducted the *Introduction of Pepper Spray into the Baltimore County Police Department* study.<sup>3</sup> That study demonstrated that the use of pepper spray lessened reliance on chemical sprays (such as mace) and batons, reduced the number of suspect and officer injuries, and led to fewer use-of-force complaints. Subsequently, NIJ published the Research for Practice guide, *Safety and Effectiveness of Pepper Spray*, (<http://www.ojp.usdoj.gov/nij/pubs-sum/195739.htm>) which established that pepper spray is a reasonably safe and effective tool for law enforcement officers to use when confronting uncooperative or combative subjects. Questions relating to the consistency and effectiveness of pepper spray, however, have led to concerns that officers relying on pepper spray to de-escalate a potentially violent encounter may be placed at increased risk if the pepper spray does not work.

Electro-Muscular Disruption Technology (EMDT) is another alternative in less-lethal technology that uses pulses of electricity to incapacitate suspects. The weapons are designed to deliver up to a 50,000-volt charge with low power and can incapacitate at a distance. Two metal probes connected by thin insulated wires are propelled by either gunpowder or nitrogen gas into the suspect who is targeted. Once the connection is made, electrical pulses are conducted through the wires for a number of seconds. The electric pulse delivered by an EMDT incapacitates suspects by causing the muscles to contract, resulting in the loss of body control. This enables the arresting officers to restrain the subject. Over the past decade, more than 5,000 departments have turned to EMDT to augment their less-lethal force options.

Manufacturers assert that the use of EMDT has no residual medical impact on the suspect. Based on the research completed to date, there is not a

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<sup>3</sup> International Association of Chiefs of Police, *Pepper Spray Evaluation Project: Results of the Introduction of Oleoresin Capsicum (OC) into the Baltimore County Police Department*, Alexandria, VA, June 1995.

basis to establish that EMDT poses unacceptable health risks when used appropriately on healthy persons. Independent data does not yet exist concerning in-custody deaths, the safety of EMDT when applied to drug or alcohol-compromised individuals, or other critical issues.

As more departments consider deployment of EMDT, experience gained from the growing use of EMDT in recent years shows they can be aided by a structured process for decision-making and deployment. Law enforcement agencies must address issues about whether EMDT will improve use-of-force outcomes in their jurisdiction and the cost of deployment. Issues such as officer and suspect safety, community acceptance, acquisition options, policy development, training requirements, and agency and officer liability are legitimate concerns. To address these immediate issues and concerns, the IACP, in collaboration with the Montgomery County Maryland Police Department, has created this Executive Brief to provide a structured process for law enforcement decision-making.<sup>4</sup>

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<sup>4</sup> **NOTE:** The Electro-Muscular Disruption Technology Brief is not intended for use as an industry standard, but can serve as a set of recommendations for policy actions.

## Approach

This Executive Brief presents a sample methodology for law enforcement, elected officials, community leaders, and other relevant stakeholders to follow when considering whether to deploy EMDT. In the course of developing this methodology, IACP conducted an extensive search of journals, newspapers articles, technical documents, and other information in order to better understand the technology and its application to law enforcement operations. IACP consulted with technology experts and reviewed available information about the health effects of EMDT. IACP representatives also conducted interviews and site visits to departments where the technology is in use, reviewed policies and procedures of various police departments, attended EMDT training sessions, and consulted with many police chiefs who have deployed EMDT. We gratefully acknowledge the extensive support of the Montgomery County Maryland Police Department in examining strategies outlined in this Executive Brief.

The 19,000 police departments in this country vary greatly in their size, structure, and governing laws. For this reason, the suggested methodology in this Executive Brief provides an example of a process that would be helpful in many jurisdictions. Each police department should review and adapt this approach based on their unique needs and circumstances, recognizing that this Executive Brief does not represent the only possible approach to address deployment issues.

We also recommend that decision-makers check the IACP website at [www.theiacp.org/research](http://www.theiacp.org/research) for current information on Electro-Muscular Disruption Technology. This website contains sample policies, training protocols, reports and information resources. These resources can provide the most current information for understanding the issues that surround deployment of this less-lethal technology.

## **Electro-Muscular Disruption Technology: A Nine-Step Strategy for Effective Deployment**

### **Step 1 – Build the Leadership Team**

As a first step in making the decision whether EMDT is appropriate for your agency, it is recommended that you develop an EMDT Leadership Team. The Leadership Team can provide a standing forum to address acquisition, cost, policy, training, liability and evaluation issues. This team should include relevant stakeholders who can provide a full and fair assessment of the issues and advise the agency about deployment of the technology.

In assembling this team, you may wish to consider including some or all of the following individuals:

- Agency head/command staff,
- Training staff,
- Policies and procedures staff,
- Field and tactical operations staff,
- Community representative,
- Legal counsel,
- Budget and procurement staff,
- Media liaison,
- Medical practitioner, and
- Governing or oversight body representative.

In choosing representatives, you should consider promoting an environment where the department and the community views can be candidly discussed in a constructive dialogue. The Leadership Team should be directed by someone who can promote consensus building that leads to community and department acceptance of deployment decisions.

#### *Team Actions*

To promote informed decision-making, the following procedures should be considered by the Leadership Team:

- Discussing the proposal with senior staff,
- Obtaining manufacturer and other information about EMDT technology (including recommended uses, factors that can affect

the effectiveness of the technology, and available research related to health effects),

- Obtaining policies and procedures from agencies using EMDT,
- Talking to administrators in other departments where EMDT has been deployed,
- Attending an EMDT training course offered by another department or EMDT vendor,
- Acquiring an EMDT device for demonstration purposes,
- Reviewing community outreach and media plans of other departments that have deployed EMDT,
- Reviewing applicable federal, state, or local limits on use-of-force (including less-lethal technologies),
- Reviewing existing publications or reports with recommendations relating to EMDT,
- Reviewing what other less-lethal technologies may be available, and
- Examining the risks of harm to officers and suspects if no less-lethal weapons are made available.

## **Step 2 – Place EMDT on the use-of-force continuum**

If the Leadership Team makes a preliminary determination that EMDT may be a deployment option, it should attempt to outline the general circumstances under which it would recommend that officers be authorized to use EMDT. It should assess the technology within the context of governing use-of-force principles, focusing on the recurring need for officers to protect themselves and others, and to take actively resisting, combative or violent people into custody using tools and tactics that reduce deaths and injuries. Placing EMDT on the use-of-force continuum as a less-lethal option, however, begins with an understanding by the Leadership Team that, when properly deployed, EMDT is not likely to cause serious injury or death.

While research into the health effects of EMDT is ongoing, information currently available to IACP indicates that EMDT, when properly used, is likely to reduce the risk of serious injury or death to officers and suspects. One manufacturer, Taser® International, conducted a study in 2002 of 2,050 field applications and found that officers were injured at a rate less than 0.5%, while suspects had an injury rate of less than 2%.<sup>5</sup> In addition,

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<sup>5</sup> See, Taser International Study, “Advanced Taser® M26 Field Report Analysis”, November 7, 2002.

the Seattle Police Department studied EMDT use from 2001 through 2003.<sup>6</sup> According to the Seattle Police Department:

“Injuries to subjects and officers are low in Taser® deployments when compared with other use-of-force situations. Subjects sustained no injuries or only dart/stun abrasions in 65% of the Taser® incidents. There have been no injuries to officers in 84% of the Taser® incidents. National studies have indicated that in police encounters with violent, combative, and mentally ill subjects, as many as 40% of the officers and the subjects may sustain injuries.”

Further, preliminary research indicates that adding EMDT to the use-of-force continuum may reduce the use of lethal force and improve the safety of officers, suspects, and bystanders.<sup>7</sup> The Leadership Team should ensure that current research supports this understanding and that they are informed about any information relating to any populations at increased risk with EMDT use.

In making this preliminary assessment, the Leadership Team can consider that an officer has several response options available when suspects threaten themselves, officers, or others. That range of options may start with presence/verbal commands, but can escalate to more physical options, including deadly force when necessary. The *IACP Concepts and Issues Paper on Electro-Muscular Control Weapons* reports that most law enforcement agencies place EMDT at the same justification level as Oleoresin Capsicum (OC), commonly referred to as pepper spray, on the force continuum. While the details of departmental policies may differ, they consistently seek to encourage a variety of less-lethal options to reduce serious injuries or deaths resulting from law enforcement encounters with combative or dangerous individuals.

The Leadership Team should consider the safety and effectiveness of EMDT relative to other use-of-force options. For example, some EMDT weapons are designed to work at a distance by shooting barb-tipped wires from a handheld device. In many cases, these weapons will not

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<sup>6</sup> See, Seattle Police Department, “SPD Special Report: The M26 Taser® Year One Implementation,” Seattle, Washington, May 2002 and <http://www.cityofseattle.net/police/Programs/Taser/DEFAULT.HTM>.

<sup>7</sup> The U.S. Department of Defense Human Effects Center for Excellence and Northern Ireland Office’s Defense Scientific Advisory Council (DSAC) Subcommittee have concluded that the risk of life-threatening or serious injuries from using EMDT is very low. Refer to: U.S. Department of Defense Human Effects Center for Excellence, “Report on Human Effectiveness and Risk Characterization of Incapacitation Devices,” Brooks Air Force Base, TX, October 2004 and Northern Ireland Office, Defense Scientific Advisory Council Subcommittee on the Medical Implications of Less-Lethal Weapons, “Second statement on the medical Implications of the use of the M26 Advanced Taser,” July 2004.

safely and successfully deploy at long ranges, thus limiting the effectiveness of the devices in such situations.<sup>8</sup>

After completing this preliminary assessment, the Leadership Team should be able to articulate its reasons for placing EMDT on the use-of-force continuum. EMDT may be repositioned on the continuum based on factors such as changes in use-of-force principles, new research information, and evaluations of actual use-of-force incidents.

### **Step 3 – Assess the Costs and Benefits of Using EMDT**

One of the critical determinations in an EMDT deployment decision is an assessment of the relative costs and benefits of using this technology. This includes an assessment of many different factors such as direct financial costs (e.g. equipment purchase and training), how the deployment may enhance or adversely affect other department functions or goals (e.g. community relations), and indirect financial costs or savings (from civil rights claims, or costs associated with evaluating EMDT incidents). This analysis should also consider the costs and benefits of alternative less-lethal technology options.

Obvious financial costs for EMDT deployment can include equipment purchase, and the cost of training. EMDT deployment can also include many hidden financial costs, such as the cost of staff involved in various aspects of EMDT deployment (e.g., policy development and community outreach).

For departments, the critical cost/benefit analysis involves the determination of whether the use of EMDT will help reduce serious injuries or deaths to suspects, law enforcement officers, and third parties. Factors to be considered in this analysis include whether there are other effective less-lethal force options, whether the use of EMDT will reduce the use of firearms by law enforcement to end violent confrontations, and the risk of serious injury or death to officers if they try to resolve violent confrontations without any less-lethal weapons.<sup>9</sup> The Leadership Team should be prepared to analyze and present data and statistics that justify use,

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<sup>8</sup> See, “Evaluation of Taser Devices,” Police Scientific Development Branch, Home Office, United Kingdom, at <http://www.homeoffice.gov.uk/docs3/psdb09-02.pdf>.

<sup>9</sup> Physical confrontations where an officer does not pull his firearm can pose substantial risks to an officer. Department of Justice statistics reveal that 1 out of 11 officers fatally shot on the job were shot with their own firearm. While this risk of death has been seriously reduced by the use of retention holsters, these holsters cannot prevent suspects from grabbing a firearm from the holster during a physical confrontation. See, FBI 2003 Uniform Crime Report, November, 2004.

together with the expected outcome benefits gained from introducing this less-lethal technology.

In comparisons with other less-lethal options in the cost/benefit analysis, OC or batons are often considered. Some initial assessments are the perceived value and impact of the EMDT technology versus these other less-lethal force options. After completion of these initial assessments, the Leadership Team can begin the process of identifying a manufacturer and detailing equipment (including warranty information), instructor certification, and curriculum training costs.

As mentioned earlier, successful deployment campaigns begin with community meetings and demonstrations of the technology. During these meetings and demonstrations, emphasis should be placed on the positive aspects of EMDT, and how the department is working with professional organizations, medical practitioners, and community leaders to communicate that deployment challenges are being considered before the technology is deployed. Costs to the agency should be anticipated when preparing for this phase of the deployment strategy.

Perhaps more difficult to obtain, but necessary for comparison purposes, are liability costs in the event of injuries to suspects and/or officers. Under this heading are costs for lost time on the job, workers compensation claims, and court awards.

Departments making EMDT cost/benefit analyses often need to consider how to finance the deployment. Departments that traditionally allocate resources for basic operations might require supplemental funding in order to acquire, outfit, and train officers to use EMDT. Local, state or federal funding options should be reviewed.

#### **Step 4 - Identify Roles and Responsibilities for EMDT Deployment**

After the Leadership Team makes a preliminary determination about how it intends to authorize the use of EMDT, it should clearly identify the roles and responsibilities of staff as they relate to the deployment of EMDT. This role definition should aid in the development and implementation of policy decisions. It is strongly recommended that this role definition occur prior to deployment.

Specifically, role definition can allow the agency to specify who will be assigned to make procurement decisions, develop policy documents,

establish a training curriculum, specify training requirements, handle post-incident evaluations, and engage in community and staff outreach.

This role definition allows the department to promote consistency in approach and reinforce policy decisions about how EMDT will be used. This role definition also helps stakeholders better understand the technology, the reasons for its use (reduced serious injuries or deaths), the applicable limits on the use of the technology, and the responsibilities of everyone involved. In establishing this role definition, accountability should be the key principle. Accountability occurs when tasks are organized so that there is a dedicated chain-of-command focused on managing the technology.

In developing role definition, the Leadership Team evaluating EMDT should provide persons with assigned roles objective, reliable, and relevant information relating to the technology, its limits, and the goals sought by its deployment. This information can also support the critical community outreach efforts.

### **Step 5 – Engage in Community Outreach**

EMDT deployment can be the subject of substantial community and media concern. Although no evidence is available to link serious injury or deaths directly with the technology, heightened public concern warrants that deployment plans be carefully developed with full recognition that community acceptance is essential to their success. It is also essential that a deployment plan underscore the importance of media relations, clearly defining when and under what circumstances the media should be contacted should there be unexpected injuries or death from the use of EMDT. Police departments need to be extremely sensitive to community perceptions about the use of this technology.

The department should consider how best to conduct outreach to the community and key justice stakeholders (including staff). It is recommended that it prepare informational materials relating to the technology, obtain objective data relating to health effects of EMDT, and discuss the costs and benefits of using this technology as a less-lethal force option in preventing serious injuries to suspects and law enforcement officers. The Leadership Team should also consider town hall or community meetings, and the involvement of advisory groups before making the decision to purchase and deploy EMDT. A useful approach to this challenge could be summarizing evaluative data and including it as

part of a public awareness campaign similar to the work done in Seattle, Washington.<sup>10</sup>

## **Step 6 – Develop Policies and Procedures for EMDT**

Decisions about use, training, reporting requirements, medical evaluations, legal constraints, and other operational considerations must be written into departmental policies and procedures before deployment of EMDT.

Steve Ijames, a Major with the Springfield, Missouri Police Department, offers this advice for department leadership authoring policies and procedures for EMDT, “Be guided by policy, not use, when developing a plan of action”. With clear and concise policies and procedures to address the use of EMDT, including methods for measuring success and reporting incidents, the department will be prepared to manage this technology.

### *Defining Permissible Uses of EMDT*

Policies should clearly describe the circumstances when EMDT may be used. It is not enough, however, to establish rules that address only when to use EMDT. Policies should also be explicit as to when its use is inappropriate.

The force a law enforcement officer may use in the course of his duties is governed by federal and state law. These laws often govern when force may be used to accomplish law enforcement objectives (e.g. to arrest and detain suspects, to prevent harm to the officer or third persons, to protect property, to prevent escapes, etc.). In addition, court decisions, local regulations, or executive policy decisions can all limit the circumstances when force may be used and the level of force permissible in any given situation.

It is recommended that the Leadership Team consult with counsel to gain a full understanding of the limitations that will apply to EMDT use. In addition to legal limitations, the department may choose, as a matter of policy, to limit the circumstances where it will authorize the use of EMDT, even if this usage might otherwise be lawful. It is strongly recommended that the department policy explicitly state that there are some

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<sup>10</sup> See, <http://www.seattle.gov/police/Programs/Taser/DEFAULT.HTM>.

inappropriate uses of EMDT (e.g. using EMDT as punishment or near potentially flammable, volatile, or explosive materials).

In addition, the Leadership Team should answer these key questions during the policies and procedures development phase:

- Should EMDT be used on fleeing suspects? (If so, are there limits on the types of fleeing suspects where EMDT can be used?)
- Should you use EMDT on mentally challenged persons?
- Should you use EMDT on persons with known or visible impairments that indicate compromised health?
- Should EMDT be used on vulnerable populations (e.g. children, the elderly, women known to be pregnant, etc.)?
- Should EMDT be used for compliance?
- Under what circumstances would multiple discharges be permissible?
- Under what circumstances would direct contact (stun) be permissible?

Including detailed examples of when to use EMDT will augment policies and procedures, and provide guidance for officers in their efforts to restrain and apprehend violent suspects. Policies should also clearly specify who may carry the weapons, where they will be worn, and whether or not the department should assign them to individual officers or supervisory personnel.

#### *Medical Protocol Option*

Departments have employed a number of approaches as to whether they should have provisions for medical attention and/or evaluation following an incident with EMDT.

A medical practitioner can assist the Leadership Team in developing protocols for the following:

- Removal of darts from sensitive areas (e.g., face, head, female breasts, genitals),
- Safe removal and disposal of biohazardous materials,
- Medical evaluation of suspects after an EMDT incident,
- Transport to a designated hospital or clinic, and
- Suggested period for monitoring suspects in-custody who have been involved in an EMDT incident.

Medical follow-up policies can provide for varying responses depending upon the circumstances of EMDT deployment or the individualized circumstances of the suspect. If “susceptible” populations<sup>11</sup> can be determined to exist, all available information about them should be assembled, and considered in the policy development. Policies may require added caution about using EMDT to restrain and apprehend these suspects (just as caution is warranted when using OC spray or other less-lethal weapons), and require different medical responses for these populations.

### *Reporting EMDT Use*

Policies should recognize that EMDT incidents constitute a use-of-force and need to be reported. Accurate record keeping of EMDT incidents promotes evaluations of the effectiveness and reliability of this less-lethal option, in addition to providing an accurate account of events that resulted in the need for use. Agencies may want to consider the extent of documentation, such as a requirement to photograph dart/stun impact areas. The forms for recording EMDT incidents should be incorporated into policies and procedures and their use reinforced through training. Sample reporting forms can be found at [www.theiacp.org/research](http://www.theiacp.org/research).

Policies may also want to address whether there are additional reporting procedures following a serious injury or death after EMDT use. Policies should address, for example, whether the weapon should be removed from service pending an investigation, and/or whether it should be sent to an independent testing lab for evaluation. Policies may also establish a mechanism for the department to review and assess the EMDT incident for follow-up action.

## **Step 7 - Create a Comprehensive Training Program for EMDT Deployment**

Before deploying EMDT, departments should create a comprehensive training program that reinforces policies and procedures. It is during this step that technical proficiency with EMDT is linked to a thorough understanding of departmental policies and procedures that govern its

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<sup>11</sup> “Susceptible” populations may include persons with pacemakers, persons in a drug induced state of delirium, women who are known to be pregnant, persons of small stature irrespective of age, and the very old and very young.

use. Training should reiterate the need for sound justification when deploying EMDT, and the proper procedure for reporting each incident.

EMDT instruction requires the development of lesson plans and simulations that are structured for situations where less-lethal force options are chosen. Hands-on training using test cartridges and foil targets that simulate human subjects reinforces the serious nature of this less-lethal option. We recommend using scenario based training exercises to enhance the learning experience and better prepare officers for field situations where EMDT use is most appropriate.

Many departments require that officers who carry an EMDT weapon experience themselves the electric shock first-hand. This training option seeks to encourage an officer to have a greater appreciation of the effects of EMDT which will assist the officer in determining the circumstances when to use EMDT.

Determining who will conduct EMDT training is another important decision. Manufacturer-sponsored instructor certification is one option. Another possibility is certifying instructors through a train-the-trainer scenario. Some departments use instructional materials developed by manufacturers, while others opt for developing their own curriculum.

Regardless of who provides instruction, it is important that the training clearly impart to the officer the limits of the technology in terms of effectiveness. Training concerning manufacturers' guidelines for maintenance and calibration of the technology should also be part of the curriculum. EMDT users should understand that devices have a built-in monitoring system that records date/time, number of discharges, and on newer models, a video rendering of each incident. These features are a source of information for report verification and validation purposes.

Another goal of training should be certification for use. As with training in the use of conventional weapons, there should also be procedures for EMDT that include qualification/re-qualification, and a written test to reinforce the learning process. Training should include information on EMDT updates (such as the pending release of an audio-video recording system) and when to expect the acquisition and deployment of these enhanced weapons.

The training plan should also ensure consistency of training information. This can be accomplished by standardized lesson plans.<sup>12</sup> Additional information relating to training materials can be found at [www.theiacp.org/research](http://www.theiacp.org/research).

### **Step 8 – Use a Phased Deployment Approach for EMDT**

After working through each of the preceding steps, the Leadership Team should decide if EMDT meets the criteria for a safe and effective alternative to deadly force. If in agreement, the team will need to develop a process for EMDT deployment.

Many departments start by issuing EMDT weapons to special operations teams (e.g., SWAT, Crisis Intervention). Another option might be to pilot the deployment of EMDT among supervisors or other select officers for use in special situations. This gives departmental leadership flexibility regarding the deployment decision, with an option to recall the weapons if circumstances warrant, or costs become too prohibitive.

During deployment of EMDT, it is important to reinforce department policies through supervisory staff. Because a situation requiring EMDT use can occur long after the initial training, periodic reinforcement by supervisors will help support the training already provided. In particular, compliance with reporting requirements and follow-up procedures by officers and supervisors.

Departments should establish a timeline for the pilot deployment, with careful monitoring of incidents where EMDT is used, including reports of injury or death-in-custody. Reports can serve as a mechanism for providing feedback to the Leadership Team so that they can assess progress of the pilot deployment and determine if full deployment is justified.

### **Step 9 – Assess EMDT Use and Determine Next Steps**

It is strongly recommended that departments conduct follow-up assessments of EMDT use. Such assessments can determine whether the technology is performing as expected, and whether officers are

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<sup>12</sup> It is significant to note that the recent report issued by the British Columbia Office of the Police Complaint Commissioner has as one of its recommendations the development of standardized lesson plans and course training for EMDT. British Columbia, Office of the Police Complaint Commissioner, “Taser Technology Review & Interim Recommendations,” September 2004.

complying with department policies. In addition, they can allow a department to take remedial action that can improve use-of-force outcomes.

Appropriate follow-up action is necessarily dependent upon accurate and prompt reporting of EMDT incidents. Once timely and complete information has been obtained, the department may want to consider a variety of options to improve future use-of-force outcomes. If an officer has deployed EMDT in a situation that has reduced the likelihood of injury to the suspect, the officer or third parties, that action can be recognized and reinforced, serving as a learning scenario for future training.

If, however, EMDT use has led to an outcome that the department does not believe was appropriate, it should assess whether this was due to a failure of the technology to perform as expected, whether the department's policy was sufficient to provide appropriate guidance, whether the department's policy was not followed, or whether this outcome was due to some other factor. Inevitably, department policies or training protocols may need to be re-evaluated and revised when new information becomes available. Likewise, departments need to consider what action is appropriate when an officer fails to follow policy. Such follow-up can include counseling, retraining, or disciplinary action needed to ensure compliance with EMDT policies.

Where there has been a serious injury or death following EMDT use, the department should also consider how best to provide the community with accurate, appropriate and necessary information about the incident and the department's proposed response. If the department's community relation liaison is provided with background materials and response protocols prior to the deployment of EMDT, he/she will be able to respond more effectively to public reaction following an EMDT incident. This information should also be provided to persons who will respond to disability claims from officers or use-of-force civil actions.

## **Summary/Future Research**

The contents of this Executive Brief are intended to help law enforcement agencies develop a strategy for EMDT deployment that establishes management accountability, guidelines for appropriate use, and reduction of the need for more lethal levels of force. The IACP also recognizes the need for further research. Much like our work in evaluating pepper spray in the 1990's, IACP supports the need for further research on EMDT outcomes, injuries, and in-custody deaths. Research at this level will provide clear evidence on all aspects of EMDT and further support law enforcement technology acquisition decision-making.

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