

Basic Training Module Specifications

<u>Functional Area:</u>	VI. Special Operations
<u>Subject Area:</u>	E. Terrorism Awareness
<u>Module Title:</u>	2. WEAPONS OF MASS DESTRUCTION
<u>Hours:</u>	Not less than 2 hours

Notes to Instructor:

MCOLES designed this material to be taught by an instructor with expertise in weapons of mass destruction (WMD). Completion of a WMD course, or similar course, is recommended.

The material in this module is to be taught at the awareness level for basic recruit training. More extensive WMD training in Michigan is available at the in-service level.

Instructors are encouraged to use problem-based learning techniques and paper-based scenarios to deliver the Weapons of Mass Destruction training.

Ideally, the material in this module should be taught in conjunction with the *Emergency Preparedness* module (VI.A.1). The law enforcement response to bombs and incendiary devices, particularly within the context of terrorism incidents, is contain in the module entitled *Explosive Devices* (VI.A.2.).

Module Objectives start on the next page:

VI.E.2.1. Define Weapons of Mass Destruction (WMD).

- a. Defines a weapon of mass destruction (WMD) as any weapon or device that is intended to cause death or serious bodily injury to a significant number of people through toxic chemicals, disease organisms, or radioactivity (see US Code, Title 5).
- b. Recognizes that most definitions of WMD include a wide variety of weapon systems that are:
  - (1) nuclear;
  - (2) radiological;
  - (3) biological; or
  - (4) chemical.
- c. Observes that attacks with weapons of mass destruction, although unlikely to occur, have the capability to inflict mass casualties and destruction and that their use is intended to create large-scale fear in a population.
- d. Recognizes that weapons of mass destruction include a variety of delivery systems, such as (18 U.S.C 921):
  - (1) a large explosive, incendiary device or poison gas;
  - (2) a weapon that may be converted to expel a projectile; and
  - (3) any combination of parts from which a destructive device can be assembled.
- e. Recognizes that chemical, biological, radiological materials, and explosive shrapnel can enter the body through four methods, called “routes of exposure”:
  - (1) inhalation (breathing);
  - (2) ingestion (mouth);
  - (3) absorption (skin contact); or
  - (4) injection (projectiles).

VI.E.2.2. Identify the Five Types of WMD Materials.

- a. Uses the acronym C-BRNE to categorize the five types of weapons of mass destruction, as:
  - (1) chemical;
  - (2) biological;
  - (3) radiological;
  - (4) nuclear; and
  - (5) explosive.
- b. Defines chemical agents as synthetic substances, that when used as weapons, are intended to produce incapacitation, serious injury, and/or death, and include the following types of agents:
  - (1) nerve;
  - (2) blister;
  - (3) blood;
  - (4) choking; and
  - (5) irritants.
- c. Defines biological agents as terrorist weapons that disperse either disease causing organisms or toxins produced by living organisms, such as:
  - (1) bacteria (e.g., anthrax, plague);
  - (2) viruses (e.g., smallpox); and
  - (3) toxins (e.g., ricin, botulism).
- d. Explains that nuclear devices involve the detonation of a nuclear bomb, or the dispersion of radiological material using a conventional explosive, where the energy released is normally through the breakdown of the nucleus of an atom (radiation or radioactive decay).
- e. Describes an explosive device as the most commonly used WMD encountered by law enforcement, which is characterized by a rapid, violent release of energy from a confined location and which is designed to have maximum destructive potential (see also VI.A.2).

VI.E.2.3. Demonstrate an Understanding of the Characteristics of Chemical Agents as Weapons of Mass Destruction.

- a. Recognizes that the delivery of chemical agents during an attack requires a device for airborne dispersion and that such agents typically settle into low places in the surrounding terrain (sewers, e.g.).
- b. Explains that chemical agents take the form of a solid, liquid, or gas and that their dispersion is affected by:
  - (1) temperature;
  - (2) humidity;

VI.E.2.3. Demonstrate an Understanding of the Characteristics of Chemical Agents as Weapons of Mass Destruction (continued).

- (3) precipitation;
  - (4) wind speed; and
  - (5) the nature of terrain and buildings.
- c. Considers that some chemical agents can be identified by military classification codes that provide the patrol officer with a quick reference to their characteristics and hazards.
  - d. Explains that chemical agents are considerably less toxic than most biological agents and therefore must be used in relatively large quantities, which increases the chances of detection and that theft or sabotage of these materials during shipment must be considered.
  - e. Recognizes that terrorists must protect themselves from death or injury from exposure to chemical agents during their manufacture, shipment, or emplacement at the target location.

VI.E.2.4. Demonstrate an Understanding of the Characteristics of Biological Agents.

- a. Identifies the major characteristics of biological agents as:
  - (1) requiring a dispersion device for airborne delivery;
  - (2) being more toxic than industrial chemicals;
  - (3) being colorless and odorless;
  - (4) being highly lethal;
  - (5) posing an inhalation hazard;
  - (6) having a delayed effect, ranging from several hours to several weeks; and;
  - (7) being invisible to the senses.
- b. Explains that small quantities of biological agents are cheap and relatively easy to manufacture from materials found from nature, hospital labs, and university research facilities, but that the development of effective delivery systems (weapons) is typically very difficult.
- c. Recognizes that biological agents can be spread throughout large areas by air currents and that ventilation systems in buildings or transportation systems may become part of the dissemination system (e.g., sarin incident in Japan).
- d. Considers that the mass casualty potential of biological agents and the public fear they create increases their potential impact as terrorist weapons.

VI.E.2.5. Demonstrate an Understanding of the Characteristics of Nuclear/Radiological Materials as Weapons of Mass Destruction.

- a. Recognizes that the psychological impact of nuclear or radiological attacks is likely to be substantial and that such attacks may cause extensive damage to the infrastructure and produce thousands of casualties.
- b. Considers that radiological materials may be found in many places, such as:
  - (1) research and educational labs;
  - (2) nuclear power plants;
  - (3) medical buildings;
  - (4) overland truck transports;
  - (5) industry; and
  - (6) government facilities.
- c. Explains that most nuclear devices are large, extremely dangerous and very costly to produce and that terrorist groups may seek secret state sponsorship, hijacking, or black-market acquisition to obtain such devices.
- d. Identifies the three potential forms of radiological terrorism as
  - (1) spreading radioactive materials using mechanical devices (e.g., fans);
  - (2) detonating conventional explosives containing large amounts of radiological material; and
  - (3) packing radiological material around a conventional explosive device.
- e. Responds to attacks, hijackings, or accidents of DOE truck transports of radiological materials by:
  - (1) approaching the scene safely;
  - (2) recognizing DOE placards;
  - (3) contacting escort personnel; and
  - (4) establishing a safe perimeter.

Notes to Instructor:

MCOLES recommends that the material contained in VI.E.2.6. be taught in conjunction with the training objectives in VI.A.2., if practicable. Information regarding suicide bombers is presented here, but more detailed information regarding explosive devices is addressed in the Explosive Devices modules.

VI.E.2.6. Demonstrate and Understanding of Explosive Devices Within the Context of Terrorism Awareness.

- a. Reviews the training objectives in the module entitled *Explosive Devices* (VI.A.2), including the characteristics of explosive materials, responding to bomb threats and incidents, and understanding the nature of bombing incidents.
- b. Identifies various types of explosive devices, such as:
  - (1) conventional devices;
  - (2) military ordnance;
  - (3) commercial devices; and
  - (4) improvised explosive devices (IED).
- c. Considers that, although there is no valid profile of a suicide bomber, some of the more common characteristics include:
  - (1) being alone and/or nervous;
  - (2) adjusting tactics to avoid notice by law enforcement;
  - (3) being unconcerned about capture;
  - (4) ignoring security measures at the target location;
  - (5) wearing loose, bulky clothing or wearing a disguise;
  - (6) having tightened hands or rigid mid-section (may be carrying devices); and
  - (7) possessing a false identity document or newly issued passport.
- d. Recognizes that suicide bombers typically prepare for attacks through:
  - (1) secrecy;
  - (2) reconnaissance; and
  - (3) rehearsals.
- e. Identifies typical targets of suicide bombers as:
  - (1) crowded restaurants or theaters;
  - (2) municipal transportation systems;
  - (3) government buildings;
  - (4) malls and shopping areas; and
  - (5) financial buildings.
- f. Responds to a suicide bomber by:
  - (1) maintaining a safe distance and separation;
  - (2) confirming that the suspect is a suicide bomber;
  - (3) not engaging in negotiation;
  - (4) isolating the bomber, if possible;
  - (5) considering the evacuation of the target area; and
  - (6) understanding that suicide bomber situations may involve the use of deadly force by law enforcement, if necessary.

VI.E.2.7. Respond to a Known or Unknown WMD Attack.

- a. As the first responder, considers the Incident Command System, as trained (see training module VI.E.3.).
- b. Assesses the situation at the scene by considering:
  - (1) weather conditions, particularly wind direction;
  - (2) number of apparent victims;
  - (3) rapid evacuation procedures;
  - (4) types of injuries and symptoms;
  - (5) substance or agent identification;
  - (6) isolating the scene; and
  - (7) the use of self-protection equipment.
- c. Handles the scene the same as any other crime scene where, to the greatest extent possible, the following factors must be considered:
  - (1) locating and collecting all relevant evidence;
  - (2) preserving evidence;
  - (3) interviewing witnesses;
  - (4) protecting the scene; and
  - (5) preparing reports.
- d. Alerts the response network, by notifying:
  - (1) 911-dispatch to call-in assistance (e.g., fire services, EMS, etc.);
  - (2) FBI Detroit Field Office (313-965-2323);
  - (3) local/county/state Office of Emergency Management; and
  - (4) local/county/state Health Department.

**Module History**

Implemented 01/05  
Reviewed 12/22