

**Maryland Fire and Rescue Institute
Drill of the Month - December 2001**

**Terrorism Awareness for the First Responder
Instructor Guide**

Level of Instruction:

Time Required: Two Hours

Materials:

- Appropriate Visuals and Projection Equipment

References:

- Emergency Response to Terrorism: Basic Concepts, U.S. Department of Justice and Federal Emergency Management Agency
- Hazardous Materials Operations Student Guide, Maryland Fire and Rescue Institute
- 2000 Emergency Response Guidebook, U.S. Department of Transportation

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PREPARATION:

Motivation:

Objective (SPO): 1-1

The firefighter will demonstrate a basic knowledge of the potential for a terrorist event and indicators that may assist the emergency responder in handling the incident safely, from memory, without assistance, to a written test accuracy of 70%.

Overview:

Terrorism Awareness For The First Responder

- Definitions
- Examples of Terrorist Events
- Potential Terrorist Tools
- Scene Size Up
- Strategy and Tactics

Terrorism Awareness for the First Responder

- SPO 1-1 The firefighter will demonstrate a basic knowledge of the potential for a terrorist event and indicators that may assist the emergency responder in handling the incident safely, from memory, without assistance, to a written test accuracy of 70%.
- EO 1-1 Define terrorism and related terms.
- EO 1-2 Identify examples of recent terrorist events to which the fire service has been called upon to respond.
- EO 1-3 Describe potential tools or means a terrorist would use to carry out an act of terrorism.
- EO 1-4 Describe the basic size up elements that should be considered when responding to a potential terrorist event.
- EO 1-5 Describe the basic strategy and tactics that should be considered as part of an emergency response to a terrorist event.

I. Definitions (1-1)

A. Terrorism - a violent act or an act dangerous to human life, in violation of the criminal laws of the United States or any segment to intimidate or coerce a government, the civilian population or any segment thereof, in furtherance of political or social objective (U.S. Department of Justice)

B. Types of Terrorism

1. The FBI categories terrorism in the United States as either domestic or international terrorism.
2. Domestic terrorism involves groups or individuals whose terrorist activities are directed at elements of the government or population without foreign direction.
3. International terrorism involves groups or individuals whose terrorist activities are foreign-based and/or directed by countries or groups outside the United States or whose activities transcend national boundaries.

C. Other Considerations

1. Terrorism is designed to disrupt the norm and create panic and fear.
2. Terrorist events may be large to get public attention to a cause or issue or small to create concern for other reasons. They may also show vulnerability in certain areas.
3. The act may be the result of religious beliefs or an act of revenge.

II. Examples Of Terrorist Activities (1-2)

A. Large Scale Terrorist Events

1. World Trade Center bombing in New York City (1993)
2. Murrah Federal Building bombing in Oklahoma City (1995)
3. Tokyo subway chemical attack (1995)
4. Pentagon (Arlington, VA) and World Trade Center (New York City) hijacks of commercial aircraft and in structures (2001)

B. Smaller Scale Terrorist Events

1. Assassination by car bombing of Chilean Ambassador to the United States in Washington, DC (1976)
 2. Multiple bombings of abortion clinics in Atlanta (1996 and 1997)
 3. Numerous letters being received containing alleged anthrax (2001)
- C. Other Events to Consider
1. Tampering with over-the-counter medications
 2. Tampering with food
 3. Hijacking of commercial aircraft
 4. Hostage situations
 5. Kidnapping of political, business, or community leaders
- D. Items to Remember
1. Terrorist incidents involving chemical or biological agents are hazardous materials incidents in terms of operations and precautions to be taken
 2. Generally operate as if the incident were a hazardous materials incident where you function within the training and equipment limitations of the responders
 3. A terrorist event other than a bombing may not appear to or be dispatched as a terrorist event
 - a. Chemical or biological releases may be EMS calls for sick people
 - b. Fire or hazardous materials alarms may appear routine rather than motivated by a terrorist
 - c. Realization of a terrorist event from a biological agent may take some time to become evident because symptoms are delayed and potential victims have dispersed from the agent release area

III. Potential Terrorist Tools (1-3)

- A. Categories of Harm
1. Categorized into one of six areas
 - a. Thermal
 - b. Radiological
 - c. Asphyxiation

- d. Chemical
 - e. Etiological
 - f. Mechanical
 - 2. Acronym is TRACEM
 - 3. B-NICE (Biological, Nuclear, Incendiary, Chemical, Explosive) is incorporated into TRACEM
- B. Thermal Harm
- 1. Both heat and cold
 - 2. Burning liquids or metals like magnesium
 - 3. Cryogenic materials such as liquid oxygen
 - 4. Mechanical, electrical, or chemical device
 - 5. Each incendiary device consists of an igniter or fuse, a container or body, and an incendiary material for filler
- C. Radiological Harm
- 1. Alpha, beta, and gamma radiation
 - 2. Use or threatened use of a nuclear bomb
 - 3. Detonation of a conventional explosive incorporating nuclear materials
- D. Asphyxiation
- 1. Lack of oxygen due to displacement by heavier than air vapors
 - 2. Depletion of oxygen by a chemical reaction such as burning
- E. Chemical
- 1. Toxic or corrosive materials such as acids, caustics, and toxic substances (nerve agents, pesticides, and other chemicals)
 - 2. Nerve agents include tabun, sarin, soman, and V agents
 - 3. Vesicants or blister agents include mustard, distilled mustard, nitrogen mustard, and lewisite
 - 4. Blood and choking agents include hydrogen cyanide, cyanogen chloride, chloride, and phosgene
 - 5. Irritants include mace, capsicum pepper spray, tear gas, and dibenzoxazapine
- F. Etiological (disease-causing) Materials
- 1. Bacteria such as anthrax

2. Rickettsia (Q fever) viruses such as hemorrhagic fever
 3. Toxins such as ricin or botulinus
- G. Mechanical
1. Any type of mechanical harm causing trauma
 2. Includes gunshot wounds, bomb fragments or shrapnel, and slip, trip, and fall hazards

IV. Scene Size Up (1-4)

- A. Initial Considerations
1. Quickly and accurately evaluate the incident area and determine the severity of danger
 2. Once the magnitude is realized, attempts to isolate the danger can begin
 3. Establish control zones early to enhance public protection efforts and better facilitate medical treatment efforts
 - a. When response resources are limited, isolating the hazard area and controlling a mass exodus of panicked and contaminated people will overwhelm first responders
 - b. Terrorists may still be lurking nearby waiting for responders to arrive, or could be among the injured
 - c. Anticipate the potential for multiple hazard locations which may require defining outer and inner operational perimeters
 - d. Controlling the scene, isolating hazards and attempting to conduct controlled evacuations are resource intensive
 - e. After a bombing, access to the scene may be limited due to rubble or debris
 4. Consider the safety of emergency response personnel first
- B. Control Zones
1. Recognizing and evaluating dangers is critical to implementing control zones
 - a. Take time to perform an adequate size up
 - b. Better to over-estimate the zone size than underestimate

2. Control zones may be influenced by
 - a. Form of releases agent - solid, liquid, vapor
 - b. Weather conditions especially wind velocity and direction
 - c. Amount and type of resources on-hand
 - d. Capability of available resources (equipment and training)
 - e. Size and configuration of incident
 - f. Stability of incident
3. Establish standard control zones and control access
 - a. Hot or exclusion zone for exceptional access (area of immediate release)
 - b. Warm zone or contamination reduction corridor
 - c. Cold or support zone for staging
 - d. May need to establish a zone beyond the cold zone to control the public and separate them from emergency responders
4. Because of the potential for secondary and tertiary events, control zones should be mapped to allow for expansion of boundaries should incident escalate
 - a. Topography
 - b. Structures and landmarks
 - c. Access and egress points
 - d. Perimeter boundaries
 - e. Changes in weather conditions
5. Using detection and monitoring equipment to substantiate effective control zone boundaries is limited
 - a. Responders must attempt to identify clean areas as well as hazardous areas
 - b. Radiological detection equipment is available for nuclear incidents
 - c. Hazardous materials teams may be needed to detect the presence of other materials
6. Isolation and stand-off distance considerations
 - a. Identify the problem from incident information and outward warning signs and detection clues
 - b. Decision making for isolation is based

upon

- 1) Potential of harm to life, critical systems, and property
 - 2) Topography
 - 3) Meteorological factors
 - 4) Resources available to implement tactical operations
- c. Access the 2000 Emergency Response Guide (ERG) to determine initial isolation and protection distances
 - d. With limited information, use ERG guide page 111
 - e. When responders suspect radioactive materials, the use of detection equipment is essential in determining isolation distances

V. Strategy and Tactics (1-5)

- A. Always approach the scene using protective clothing and equipment including SCBA
- B. Be alert for outward warning signs that may indicate the type of danger present
 1. Casualties resulting from no apparent reason
 2. Signs and symptoms indicating chemical exposure
 3. Obvious signs of criminal activity such as weapons on the scene
 4. Pre-incident verbal or written warnings
- C. Properly stage vehicles
 1. If practical, position first arriving units and responders upwind and uphill
 2. Direct other units to approach from upwind and uphill if possible
 3. Avoid stacking units where they interfere with each other's evacuation route
 4. Avoid line-of-sight staging with suspected explosive devices
 5. Strictly enforce staging instructions
 6. Consider having units back into position so that they can leave the scene efficiently
- D. Avoid vapor clouds, mist, and unknown liquids
- E. Initially, assign at least one team to observe on-

- going activities surrounding the operating position to observe any criminal activity or the potential for a secondary event
- F. Plan tentative escape routes and refuge assembly points
 - G. Prepare for emergency decontamination on arrival and during all phases of the incident
 - H. Scene safety is the responsibility of the incident commander
 1. Incident commander must ensure that no one else gets hurt beyond those injured or killed on arrival
 2. First responders are the first safety consideration followed by the public
 3. Keep eyes and ears open for changes in incident
 - I. Ask questions to get more information on potential problem
 1. What happened prior to arrival (vapor clouds, odors, spills or leaks, etc.)
 2. What did observers see
 3. Was there anything suspicious (people, vehicles, containers)
 4. Were there any indicators of the presence of a product such as dead plants or animals, victims with medical emergencies, chemical reactions
 5. Where did the product(s) come from, how long have they been there, and what has changed while they were there
 - J. Outward warning signs and detection clues for the presence of a biological agent
 1. Verbal or written threats
 2. Suspicious bombing incidents that do not cause much blast or fire damage
 3. Abandoned spray device out of place for the environment
 4. Containers from laboratory or biological supply houses
 5. Biohazard, culture, or culture media labels
 6. Unusual numbers of sick or dying people or

- animals
- a. Any number of symptoms may occur
 - b. Casualties may occur hours to days after an incident has occurred
 - c. Time required before symptoms are observed is dependent on the agent used
7. Unscheduled and unusual spray being disseminated, especially outdoors during periods of darkness
- K. Outward warning signs and detection clues for radiological agents include placards, labels, and specialized packaging
- L. Outward warning signs and detection clues for incendiary devices
1. Prior warning (phone calls)
 2. Multiple fire locations
 3. Signs of accelerants
 4. Containers from flammable liquids
 5. Splatter patterns indicating a thrown device
 6. Fusing residue
 7. Signs of forced entry to the structure
 8. Common appliances out of place for the environment
- M. Outward warning signs and detection clues for chemical devices
1. Symptoms such as miosis, runny noses, difficulty breathing, and uncontrolled muscles and bodily functions for nerve agents. Victims may report a fruity odor
 2. Observation of blistering and other external symptoms for vesicants (blister) agents; numerous individuals experiencing unexplained water-like blisters, weals, and/or rashes. Victims may report an odor of garlic
 3. Showing great difficulty in breathing and onset of cardiac symptoms for blood agents. Victims may report an odor of bitter or burnt almonds
 4. Observation of pulmonary distress for choking agents. Victims may report odors such as chlorine, bleach or swimming pool odors (chlorine) or newly-mowed hay or grass (phosgene)

5. Observation of classic tear gas symptoms for irritants. Victims may report multiple odors including hair spray and pepper.
 6. Dead animals/birds/fish
 - a. Not just an occasional road kill
 - b. Numerous animals, birds, and fish in same area
 7. Lack of insect life
 - a. If normal insect activity is missing, check for dead insects
 - b. If near, water, check for dead fish or aquatic birds
 8. Unexplained odors - important to note that the particular odor is completely out of character with its surroundings
 9. Pattern of casualties
 - a. Likely distributed downwind
 - b. Near air ventilation system if indoors
 10. Illness in confined areas - different casualty rates for people working indoors versus outdoors dependent on where agent is released
 11. Unusual liquid droplets - numerous surfaces exhibit oily droplets/film; numerous water surfaces have an oily film when there was no rain
 12. Different looking areas - not just a patch of dead weeds but trees, shrubs, bushes, food crops, and/or lawns that are dead, discolored or withered
 13. Low-lying clouds - condition that is not consistent with its surroundings
 14. Unusual metal debris - unexplained bomb/munitions-like material, especially if it contains a liquid
- N. Basic considerations
1. Keep exposure time and product contact to a minimum
 2. Keep an appropriate distance from the hazardous environment
 3. Implement appropriate shielding in the form of respiratory protection and protective clothing
 4. May require emergency decontamination of

- large numbers of people
5. May require activation of mass casualty or disaster plans due to large number of victims
 6. First responders may be able to do nothing more than control access to the scene by responders or control exit from the scene of victims

It is recommended that every emergency responder take the National Fire Academy Emergency Response To Terrorism: Basic Concepts course and a hazardous materials operations course. Contact your state fire training agency for further information on these courses.

SUMMARY:

Review:

Terrorism Awareness for the First Responder

- Definitions
- Examples of Terrorist Events
- Potential Terrorist Tools
- Scene Size Up
- Strategy and Tactics

Remotivation:

Every incident has the potential of being a terrorism-initiated event. Observing as you approach the scene can be your first clue. Failure to take proper precautions and utilize available protective clothing and equipment could make you a victim rather than a rescuer.

Assignment:

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EVALUATION: