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## **TERRORISM FIREFIGHTING STRATEGIES**

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The Wall Street Journal stated the first rescuers at a terrorist incident would serve as miner's canaries. Firefighters and police officers would collapse like caged birds once carried by miners, signaling the presence of something exceptionally dangerous. Bringing in homeland security, the US army, and the National Guard will help but the toughest job will fall to local fire and police departments which are still not prepared. Terrorism is defined by the FBI as an unlawful act of force or violence against a person or property

with the intent to coerce or intimidate a government or people for a political or social purpose and there has been a change in the objective of the terrorist's act. In the past, the objective of the terrorist was a destructive act that would bring attention to a political or social cause. Today, the objective is to kill. The terrorist wants to kill as many men women and children as possible. Unfortunately firefighters and police are sometimes the people killed.

Also according to the FBI the terror weapons used most often is a bomb, or so called "IED"-improvised explosive device. The fire service will be part of the first response team that responds to terrorist acts. In this time of war on terrorism everyone will be asked to contribute. Police officers, transit employees, building managers have all taken steps to prepare for another attack. What about your fire department? We may be called into action by federal, state and local officials to perform duties which we have not been trained to accomplish. Until better training comes to the fire service we will have to improvise actions at an incident where there is a suspected IED and use some of our firefighting strategy to fit at a terrorist's incident. The following are firefighting strategies that can be used for terrorism strategies. Defensive firefighting procedures can be used when responding to a suspected IED.

### **An Improvised Explosive Device "IED"**

What is the difference between a bomb and an improvised explosive device? A bomb goes into an airplane; a bullet goes into a gun; an artillery shell goes into cannon a grenade goes on a soldier's belt. An IED - improvised explosive device is not a bomb. It is any type of explosive material that can be stuffed into a bag, pipe, bottle, can, package, or 55 gallon drum. IED making can involve a fire response to an explosion caused by teenage boys trying to make a pipe bomb. At one incident boys filled up a section of pipe with match head. While screwing the last end of the cap on the pipe, the compression caused the bomb to explode. Both boys had serious injuries. Most terrorist IED's are much more deadly and have been built and used by urban rioters, domestic or international enemies of the U.S and are used to kill or injure people

IEDs are the number one weapon of the terrorist. This is the most probable response fire and police will encounter. So the fire service must have a strategy for this fire department operation-where a suspected "improvised explosive device" (IEDs) is

suspected or has already exploded causing a fire and collapse. Firefighters arriving first at terrorist bomb incident will be required to take lifesaving action.

Police sometimes request the assistance of firefighters when searching for bombs. In the past when searching for an IED local officials and police have requested the fire department assistance for evacuation, forcible entry, and collapse search and rescue operations and firefighting operations after the bomb explodes.

The following are firefighting strategies that can be used for the above operations where IEDs are suspected or have detonated

**Strategy when called to the scene to assist police at a bomb incident.** When a call is sent to the fire department for assistance fore a suspected bomb incident only one chief and a pumper should respond. This small response offers the advantages of better control, coordination and safety at an incident where there is a real danger of explosion collapse and fire. The chief should report to the police commander and first get a briefing about the specifics of the incident- Who What When Where Why and How. Next the incident commandeer must size up the construction occupancy and available fire protection. For example: the buildings contents and the construction must be considered in order to estimate the possible fire and type of collapse. The height of surrounding exposures must be observed. Adjacent higher buildings will be at greater risk during a fire than low buildings or buildings of equal size. Water supplies, sprinklers, standpipes and hydrants to be used are identified. A staging area must be upwind uphill and out of the explosive and a possible “dirty bomb’s contamination range. Pre-arranged locations and spaces for apparatus placement in the danger area must also be determined during the size up. Best location to position an aerial platform for master stream use. Hydrants for pumper hook ups. Access for apparatus and firefighters must be maintained by police. A triage center should be set up by medical personnel at staging. The potential for large numbers of injuries from the IED explosion and biological radiological or chemical contamination exist at such an incident. Finally, the fire chief determines the number of fire companies to call to the scene.

Based on the size up, the incident commander should order a specific number of responding fire companies to stage at the designated safe location out of the explosive danger zone and not report to the command post until called for. Responding units should

be notified, before responding, department radios and cell phones may trigger a bomb explosion, so mobile radios and phones of incoming units should be shut off 300 feet from the suspected bomb area.

**Decision making** At a terrorist incident where federal state and local officials are present the fire department is going to be requested to perform duties, some which we have not been trained to perform and some requests may place firefighters at unusual high risk situations. Firefighters may work under the command of a federal state or local official; however they should never work under the supervision of any one other than a fire officer. All decisions which place firefighters at risk at a terror incident should be approved by the fire commander at the scene. Firefighters may work with a federal, state, or local official or police officers however firefighters operating at terror incidents should operate under supervision of a fire officer at all times. Many government officials from federal state and local governments responding to fires and emergencies today have no experience in operating at life and death emergencies. They may order firefighters to take unreasonable risks for a political reason not a life and death object. Most non-uniformed officials responding to emergency scenes are elected or political appointees and they do not understand making at life and death decision making at emergency operation: Life safety is the first priority- and this includes the life safety of the first responders-incident stabilization a second priority; and property protection is the last goal of the first responder's actions. If the fire officer in command determines the actions requested of firefighters are too dangerous, the incident commander has a legal and moral responsibility to notify the federal, state or local official in charge of this opinion.

### **Strategy for forcible entry**

If the police or public official requests firefighters to force entry to a premise where there is a suspected IED the team fire officer must first size up the entire doorway. In some instances doors are booby trapped. Any vibration on the door could trigger a blast. If an alternate approach is possible the fire officer should suggest placing a ladder at a window and allowing police to gain entry from ladder through the window. A rabbit tool should be used to force the door. This creates less vibration and is quicker. As soon as the force entry is accomplished all firefighter withdraw to safety. If the team fire officer determine it is safe to force entry and the police have any type of protective body

amour the firefighters performing forcible entry should borrow and wear this protection. . Any firefighter asked to enter police lines must be equipped with, the same standard protective equipment used by police at such an incident, such as, helmet, face shield, bulletproof vest and shield of armor. If not, a firefighter in full protective clothing plus SCBA and eye shields should worn by firefighters. All other firefighters at the scene should use distance and shielding for protection from a possible explosion. Control of all firefighters at the scene is a must during an IED response.

### **Strategy for evacuating nearby buildings**

Firefighters may be requested to assist police in evacuating adjoining buildings near a bomb. Firefighters should protect exposures and evacuate people from nearby structures outside of police lines. When a bomb explodes, one of the greatest causes of death and injury is flying glass. Windows may blow out to the street. All firefighters inside and outside during an evacuation procedure should be ordered to have eye shields in place. During an explosion jagged, sharp, glass pieces will fly through the air with hurricane force. All protective clothing and especially eye shields should protect firefighters.

The minimum number of firefighters should be used to evacuate a nearby building and firefighters in teams should operate with a supervising team fire officer. The strategy at the scene of a suspected bomb is still life safety first, and includes firefighters. Incident stabilization is the second priority at any emergency scene, and property protection third. Public officials and some police commanders may not be aware of such fire service guidelines. The incident commander may have to remind the public officials who appear to be unfamiliar with emergency rescue operation principles.

Evacuating people near a suspected hidden bomb site is different from evacuating people from a burning building. The evacuation procedures are based on the fact police may expand the bomb search and eventually have to search this area after the people leave. First before the evacuation starts specific stair should be designated for evacuation. People leaving the building should be requested to leave by way of this exit. A prior search of the entire stair way: lobby, stair corridor leading to stairs should have been conducted. There should be a large holding areas where people leaving the building should be instructed go to once outside. People should not linger outside the building this will slow the evacuation.

During the evacuation people asked to leave a building should be told to take all belongings, clothing and packages, with them so there will be fewer items to search for the hidden explosives. Also, people should be directed to leave open their desks drawers and lockers. This will reduce the property damage. Desk locks and closet doors will not have to be broken by bomb searchers. Windows and doors should remain open. These opening will become vents and release destructive pressures during an explosion. Leave the lights on the searches may not get to the area until darkness this will improve their visibility. Shut off office machines such as computers, fax machines, coffee makers. The noise from electric and mechanical devices may be mistaken for a bomb.

### **Evacuation strategies**

Buildings are not automatically evacuated when there is a reported bomb nearby. Sometimes the terrorist reports a bomb is in a truck or in a parked car or placed on a window sill or in the street. If a bomb is reported to be outside, it may be safer to keep the people inside the building and take them to the basement or ran interior windowless room. When the decision is made to evacuate people from a building, they may be taken out a rear door if the suspected bomb is place in the front of the building. The decision, to evacuate, or not to evacuate, is not always the incident commander's call. It is the decision of the building manager to evacuate the occupants or not. For example, if there is an anonymous telephone call that a bomb has been placed in a building, it is the decision of a building manager or a school principal to order the building evacuated or not evacuated. The fire commander at the scene may assist the evacuation. But if a building manager or school official asks an incident commander, chief what do you think, should we evacuate the building? The fire officer may offer advice but it should be made clear the decision to evacuate occupants, or not, is the person in charge of the building. There was an incident where a bomb was reported in a school and the principal decided not to evacuate the students. She was initially criticized by parents. Then she defended her actions by stated the caller was not familiar with the school she decided the call was a prank. In her defense she reminded the parents of a reported incident at a school, incident where the school was evacuated and the shooter was waiting outside and killed several children with a rifle. There was another incident where an incident commander ordered the building evacuated because of a reported bomb placement. After the evacuation and

search there was no bomb found. The local government was sued by one of the companies whose employees were ordered to leave the building. The company CEO claimed because the building was evacuated and some employee did not come back to work after the bomb search proved negative the company lost money. He further stated the loss was due to order given to evacuate the building during the bomb search.

### **Strategy for firefighting**

Firefighters should respond to a reported IED explosion scene from the upwind side of the incident and uphill so any contaminated run off water from hose streams does not spread to firefighters and apparatus. The Initial fire attack at a terrorist bomb blast site is a defensive operation using master streams equipped with large diameter nozzles. A nozzle of 1 1/2 inch or 1 3/4 inch diameter from a deckpipe or aerial stream, supplied by large diameter hose supplied with 100 pounds nozzle pressure, can produce a stream that reaches 90 to 100 feet. These large diameter streams from portable deluge nozzles, deck pipes, snorkels and/or aerial master streams can provide safety to firefighter by leaving a large distance between them and the contaminated explosive area. Increasing distance from the danger area, limiting time of entry near the danger area and shielding-taking cover behind fire apparatus and buildings are may be the only protection against a blast and wind blown contamination from a “dirty bomb” IED. If after arriving at the scene there is a report of another explosion or chemical, biological or nuclear emission taking place firefighters should be withdrawn.

Whenever firefighters are committed to firefighting operations at a suspected IED explosion, the incident commander should consider the possibility the bomb being contaminated by nuclear, biological or chemical materials. In addition to the incident commander ordering firefighters to use the protection of time, distance and shielding, a verification of the surrounding area for contamination, or reports of a dirty bomb should be obtained from officials on the scene and the dispatcher. The priorities of a terrorist response are life safety first and this includes the lives of the responding firefighters. Chemical experts should be called to the scene to analyze the atmosphere. If contamination of the area has been confirmed a hazardous material incident should be declared. If firefighters must continue to operate due to life saving factors, the time firefighters spend at the explosion site should be controlled and limited by timing and

rotating members. All potentially exposed firefighters should be quarantined and sent to a decontamination area.

### **Life saving searches**

The strategy of limiting exposure time, and using the shielding of nearby buildings and fire apparatus are admittedly poor protection at a terrorist incident, however this is all many fire departments can do today. Interior assignments should only be for rescue. Firefighters assigned into teams should be equipped with all available protective equipment. In addition they must also have radios, masks, force entry hydraulic tools, portable extinguisher, and monitoring and sensing devices to detect chemical, nuclear or biological hazards.

The protection of “time” can be used by limiting firefighter’s exposure risks in a danger area. For example the incident commander can order a time limit of 15 minutes or less for an outside explosion scene operations and/or a search in a low rise building; and a search time of 45 minutes or less in a high rise building. Of this total high rise “exposure time” only 15 minutes of the 45 minutes is for entry on the floor of the terror incident. Thirty minutes is provided as reflex time getting to the high rise incident floor and returning down to the command post. Also the use of protective hazmat suits and shielding provided by protective equipment along with radioactive and chemical monitoring devices should be required for all firefighters entering a contaminated area.

Master streams operating at terror incidents should not have firefighters positioned at the tip of the ladder. For example aerial platforms with fixed nozzles can be raised at low angles to increase distance from the blast. They may be operated by firefighters on the turntable. Ground based portable deluge nozzle should be tied to a substantial object and left unattended.

If there is no life hazard and the fire and explosion is suspected to be the result of a dirty bomb let the fire burn. More contamination may result from hose stream run off and fire kept smoldering by a defensive attack. A standard procedure for a fire in a pesticide plant is to let the fire burn this may be the preferred tactic for a dirty bomb that has caused a fire.

**Collapse Search and Rescue** The aftereffects of any type explosion including a terrorist’s IED is smoke, fire, dead and injured bystanders, and people trapped inside a

collapsed burning building calling for help. First responder to an explosion should first quickly size-up the scene. and follow the collapse rescue plan. The collapse rescue plan has five steps however only steps 1, 2 and 3, should be carried out. The first actions at a terrorist explosion site should be as follows: Step 1. size up the entire scene.

Conditions at the rear or sides could be worse than the front of the bombed out building site. Omit the survey on the downwind side of the collapse area if there is a danger of a wind blown contamination from a dirty bomb. The objective of the safety size up is to look for trapped victims, spreading fire, parts of the building that are in danger of secondary collapse, and for avenues of access into the demolished building. The size up should also note the location of any sprinkler siamese inlets serving the building. An indirect attack on a collapsed burning building using master streams and sprinklers systems should be the first consideration for fire suppression during a terrorist explosion.

Upon arrival after a terrorist's bomb detonates, bystanders will have already rushed to the aid surface victims. It will be a chaotic scene. These civilian rescuers and the victims buried in the rubble may become contaminated by a biological, nuclear or chemical contaminant. Fire lines must be set up and everyone at the scene must be segregated, and restricted from leaving the scene. Set up haz-mat type operating procedure. Rope off the hot area (contaminated), the warm area (for segregation and decontamination), and the cold area (safe), and request police restrict entry and exit from all three areas at the haz-mat area. The incident commander's preliminary report should state clearly: this is a possible terrorist bomb and fire responders should report to a staging area uphill and upwind and not report to the command post. Haz-mat and decontamination units should be called to the scene. Civilians, and rescuers, will have already pulled "surface victims" from the collapse rubble. They both may be contaminated and should be segregated and not allowed to leave. During the size up, one of the first actions of the incident commander should be to shut off the utilities serving buildings in the explosion site. If possible the gas, electric and water supply to the bombed out building should be shut off. Leaking gas can cause another explosion; electric wires in the collapse rubble may ignite the leaking gas. If the electricity is not shut off it can electrocute victims and rescuers who are digging in the rubble. Shutting

off the water supply to the collapsed building many prevent the drowning of people who have taken refuge in the below grade areas. Utility companies should be called to the scene to assist in this important life saving action.

Collapse search and rescue operations will only include the first three steps of a collapse rescue plan. 1 Safety size-up, 2. Removing surface victims; 3. Searching voids and crevices for trapped victims. The step 4, tunneling and trenching, and step 5, general rubble removal is not carried out at a terrorist explosion and collapse until the area is declared safe from another explosion and or contamination. Prior experience at collapse search and rescue operations have shown a total of 75 % of the survivors will be saved by the three steps of the collapse search and rescue plan: 1.size up; 2.removing surface victims; and 3. searching for people trapped in voids and crevices. After these three actions are completed at a collapsed building operation, the risks (danger to firefighters) exceed the benefits of finding live victims. At a terrorist incident the danger is even greater. The collapse search and rescue steps of tunneling and trenching and general rubble removal should be delayed until the site is declared free of chemical, biological or nuclear contamination. A second bomb could be located near a command post or on a roadway used to transport victims to a hospital.

### **Firefighter safety during a police bomb search**

When responding to a suspected bomb placement and upon arrival police are searching and firefighters are requested to stand by orders. The incident should insure firefighters take cover. Sometimes a bomb is placed in a parked car or truck at the sidewalk around the building. Other times the IED is place on a window sill. So firefighters outside will be exposed to the blast. While police are searching for a bomb firefighters should be positioned a safe distance away from the building. The incident commander should order firefighters to position apparatus around corners of building out of the direct blast danger zone. Firefighters should not be positioned near glass windows that may shatter during an explosion. Taking cover behind a building or around a corner will protect firefighters the direct blast, and shock waves of an explosion. However shock waves of explosion and flying shrapnel can ricochet and bounce off buildings and travel around corners so protective equipment especially eye protections should be worn at all times even when out of direct path of the bomb area..

Firefighters generally are not requested to search for IEDs, however, during these early undefined, stages in the “war on terror”, if there are insufficient police officers on scene, and the fire department has personnel available, with protective equipment, the Incident fire commander may be requested by community leaders and/or federal state or local officials to have the firefighters search for a terrorist’s biological, nuclear, chemical, or explosive device. IED searching by untrained firefighters is not recommended. However, if it is a community life and death situation, and many lives are at risk, and we size up the situation, considering the priorities of incident management: life safety of our community resident’s first, incident stabilization second and property protection third, the fire commander might be ordered commit firefighters to search for a terrorist device. or to assist police in the search. The following are some guidelines for IED searching that you may use.

### **Bomb searching strategy**

Searching for IEDs is different from fire searching. Searching begins outside the building. First, vehicles parked in the street around the building are examined. Owners are requested to move vehicles. Any vehicle not identified by a local resident and not moved must be considered a potential vehicle bomb. Next, the outside sidewalk around the perimeter of the building is examined for the bomb. Window sills on the first floor are often the site of a package bomb. Then the building's interior is searched, starting in the cellar and working upward. Pay attention to areas where a bomber could gain access inside the building and easily place an explosive package and set a timing device unnoticed. Bathrooms, stairways, refuse containers, storage areas and supply closets are places in which a bomb may be hidden. According to the Emergency Response to Terrorism, manual, page 4-39, the following are a few warning signs of a bomb. Note: If a suspected bomb is discovered, do not touch or disturb. Note the location, floor and room. Report this to the incident commander. Do not use portable radios that may trigger an explosion during search.

### **Bomb indicators:**

- Abandoned vehicles that do not appear to belong in the area
- Strong chemical odors
- Any unusual container out of place

- Obvious bomb making pieces such as: blasting caps, wire, or clock- timers
- Unusual device attached to a pressure of flammable container or cylinder
- Unusual looking or misplaced mailing containers leaking oil or wired
- Bags hanging on hooks inside restroom stalls
- Bombs

Firefighter sometimes accidentally come upon piles of stored IED during fire prevention inspection of buildings and when searching buildings for fires and alarm malfunctions. Firefighters should be able to identify a bomb. Being able to identify a bomb may save a live. When any of the following explosive devices are discovered the police bomb squad should be immediately notified. The device should not be disturbed and the area evacuated of people.

**Explosive material placed in a pipe (pipe bomb)** Explosive material is packed into a pipe and capped on both ends. This is a fragment bomb; it kills and injures by exploding pieces of flying metal. This type of bomb can be identified by a section of pipe capped at both ends. A fuse may extend from one end. Nails or sharp objects may be attached to the outside of the pipe. Do not touch a pipe bomb discovered at a fire... Pipe bombs are sensitive.

**Explosive materials placed into a bottle (bottle bomb)** The most common bottle IED is called a Molotov cocktail, named after a Russian government official. It was a World War II anti-tank weapon and is the weapons of choice at urban terrorist acting out at civil disturbances. This type of IED can be identified by a bottle filled with liquid and piece of cloth at the opening. A bottle filled with gasoline and sulfuric acid is capped and wrapped in a sock soaked with potassium chlorate and sugar is a common IED. When thrown, the bottle breaks and the mixing of the sulfuric acid and potassium chlorate causes the explosion and resulting fire. Bottle bombs have been discovered on roofs of multiple dwellings by firefighters conducting building inspections. They are thrown off the roof on to police and fire trucks responding through the streets below.

**Explosive material placed into a small can with a spark plug (car bomb)** This type IED is a canister usually placed inside the motor compartment of an auto. The lid of the canister is closed and sealed. This type of IED would be identified by examining a cars engine and observing the spark plugs. A spark plug is installed through this sealed

canister lid. The wire of spark plug 1 is removed from the engine spark plug and attached to the bomb spark plug. When the car is started, the bomb explodes. The car bomb is sometimes used by organized crime to assassinate a mobster. The car bomb is also used for a revenge killing by a deranged person.

**Explosive material placed into a backpack (satchel bomb)** This is a satchel or bomb IED. Several sticks of dynamite placed in a shoulder-strap bag with one or two small liquid propane cylinders can create a tremendous explosion and fire. Any type of bag left unattended must be considered a potential IED. This type of bomb can be placed in a crowded area or thrown in a window or placed in a crowded area. The cylinder of liquid natural gas is added in order to create a fire ball during the explosion. A satchel bomb can be thrown, planted on a train, found hanging on a hook inside a restroom stall or inside a locker in a train or bus station. Eleven people were killed and 86 injured at LaGuardia airport in 1975 by a satchel bomb placed in a locker.

**Explosive material placed in a postal package (mail bomb)** This so called mail bomb is most often in small packages sent through the mail. A letter (package) bomb often kills or injures the wrong person. The spouse, relative or co-worker of the intended victim may open the mail bomb. A mail bomb can sometimes be identified by excessive weight, oil stains, lopsided or uneven packaging, excessive postage or foreign mail, air mail or special delivery indicators or the return address may be missing. The so called "Unabomber" Ted Krusinsky killed 3 and injured 17 over 23 years by sending package bombs to people associated with airlines, universities and corporations

**Explosive material placed in a flashlight. (flashlight bomb)** The explosive material can be inserted where the flashlight batteries would normally fit. The flashlight IED can be carried or placed in a bag and not create suspicion. This type IED can only be identified by examining the batteries of the flashlight. When searching baggage battery compartments should be checked to insure explosives have not replaced batteries.

The same action of not disturbing the explosive and notifying your supervisor applies whenever firefighters are working inside a burning building and they discover a military grenade, artillery shell or bullets. At once sad incident several years ago involving a weapon discovery in the Bronx N.Y., where this procedure was not followed, a firefighter overhauling after a bedroom fire discovered a gun beneath a mattress. The

firefighter finding the gun jokingly picked up the gun pointed it at another firefighter and it accidentally discharged shooting the firefighter in the heart killing him instantly.

### **Explosive materials used to make IEDs**

There are three classifications of explosives used to make IEDs: they are high explosives, low explosives and blasting agents. Don't let this classification fool you. There is no difference between high explosives or low explosives and blasting agents when they explode. The explosive power of all three high low and blasting agents is the same. The only difference between these classifications of is the degree of heat or shock it takes to detonate each one. The "low" explosive's takes more heat and more shock to detonate than the high explosive. And the blasting agent (Ammonium Nitrate is classified as a blasting agent by the Department of Transportation) takes more heat and shock to explode than low explosives however it is just as powerful as a high explosive when it is detonated. A blasting agent was used at the Oklahoma City terrorist act and the first world trade center attack in 1993. (Jet fuel in the jet fuel tanks was the explosive material used by the 9-11 terrorist hijackers)

It is also; very important for firefighters to realize the Fire Service considers all three – high explosives, low explosives and blasting agents - as "explosive materials." The Fire service and the National Fire Protection Association's standard operating guidelines for fighting fires involving these, so called "explosive materials" is as follows: "No attempt should be made to fight a fire involving explosive materials." The area should be evacuated to a distance of at least 2,000 feet (610 meters). Firefighters may attempt to control a fire they is spreading toward a structure containing explosive material, however if the fire spread appears unstoppable or the flames have already involved the structure or magazine containing the explosives, firefighters should not attempt to fight the fire. Firefighters should evacuate the people and themselves. They should withdraw 2000 feet away.

### **Explosion effects**

The explosion from an IED is the same as any explosive material. An explosion is a violent expansion of gas. Accompanying an explosive blast are heat, flame, noise, shock waves, and shrapnel. When an explosion happens first there are powerful shockwaves from the explosion. These shockwaves spread outward, upward and down

into the ground. Carried along with the shockwaves are fragments of the explosive container. Then the blast creates secondary fragments: glass, windows, doors and partition walls of nearby buildings. Then there may be a vacuum-implosion. Glass and parts of building facades collapse back down into the street. One of the major causes of injury during an explosion is cuts and lacerations. An explosion creates a hurricane of broken window glass. Cuts and lacerations will be the major injury. Eye and facial protection is very important. Even when responding after an explosion and first responders start operations there will be a severe danger of falling objects. Glass and parts of the façade will be objects falling from upper floors of damaged buildings. Glass shards, parapet walls and curtain wall facing will fall to the street. Head protection will be very important during search and rescue. The only person killed during the search and rescue at the Oklahoma City explosion was a nurse Rebecca Anderson. She was struck on the head by an object falling from an upper floor.

#### **Lessons Learned:**

1. Fire departments should identify terrorist targets in the community. Then preplans should be established. Some possible targets are: 1. Places of transportation such as trains planes, bridges tunnel ships. 2. Sports facilities 3. Utility plants and fuel pipelines 4 Government buildings 5. Finance centers
2. The Homeland security department should train police, fire and local official in a unified incident command system and hold interagency operations at these terror targets for pre bomb and post bomb blast procedures –Locate water supply, stretch hose line, supply sprinkler and standpipes. Preplan the positions for a command post, determine staging locations for apparatus and firefighters, upwind and uphill. Consider use of **time, distance, and shielding, for** protection of firefighters at the scene.
3. Fire departments should train for search and rescue bomb blast procedures: Use a limited collapse search and rescue operation, and defensive firefighting operations- establishing hazardous material procedures, or withdrawal to safety. Fires and collapse are the leftovers of an explosion. First responders will be required to perform multiple simultaneous operations. After an explosion firefighters will be required to provide: medical assistance to injured people; protect exposures from fire; conduct collapse search and rescue operations to free victims trapped in the collapse rubble and firefighting.

4. Fire department should train how to carry out evacuation procedures in nearby buildings during suspected bomb incidents
5. Fire department should train for bomb searching techniques until homeland security provides a more realistic rapid response of bomb searching experts to local communities. The National Guard, the US army and the FBI will not arrive in time.
6. Fire departments should lobby community leaders for homeland security training funding.
7. Until funding for training is forthcoming read guidelines for bomb searching from the book, Emergency Response to Terrorism, taught at the National Fire Academy.
8. Fire departments should review and update the following SOPs for operating at terrorist's IED incidents:

**Situation #1 Fire Caused by a terrorists IED** When firefighters at the scene of an explosion, collapse and fire, discover the incident was caused by a terrorist IED, they should notify the police department; evacuate injured people; and protect the exposed building against fire from a safe distance.

**Situation #2 Discovering a terrorist IED after a Fire.** When firefighters discover an unexploded terrorist's IED after a fire has been extinguished, they must not disturb the device. Firefighters evacuate people and withdraw a safe distance out of sight of the potential explosion area; notify the police. Firefighters located at a safe area should prepare to protect exposure buildings from a fire; and if an explosion occurs firefighters may have to conduct a collapse and rescue operation; then prepare for a hazardous materials operation if the explosion is from a so called "dirty bomb".

**Situation # 3 Search and Evacuation of Suspected IED Area.** When called to a terrorist's bomb incident by the police department, firefighters must report to the police officer in charge; assist as requested. If the police request firefighters to search for the bomb or evacuate a building suspected with bomb placement and the incident commanders decides to comply with the request first, addition reinforcements should be called. These back-up firefighters prepare for an explosion. After the explosions firefighters may have to rescue trapped police and firefighters. A collapse search and rescue operation may be required. At the same times a simultaneous Haz- Mat incident may also have to be started.

## QUESTIONS FOR NEWSLETTER:

1. True or False The terrorists want to kill men women and children

Answer: \_\_\_\_\_

2. Which is an untrue statement about operating at a terrorist incident?

- A. Fire officers will have to improvise actions
- B. Firefighting strategies will have to be used
- C. Offensive firefighting strategies will be adapted to terrorism incidents
- D. Fire officers will be asked to perform actions we have not been trained to perform.

Answer: \_\_\_\_\_

3. Which one of the following is incorrect when responding to assist Police at a bomb incident?

- A. A small response is best- one chief and one pumper
- B. Incident commander should report to police commander for briefing
- C. Staging area should be downwind and down hill from incident
- D. Radios should be shut off at least 300 feet from suspected bomb incident

Answer: \_\_\_\_\_

4. Which statement is untrue when operating at an incident of suspected dirty bomb?

- A. Limit firefighters time in area
- B. Keep firefighters as far away from area as possible
- C. Firefighters should take cover behind apparatus and buildings
- D. Assume a chemical expert from Homeland security will be on hand to analyze atmosphere

Answer: \_\_\_\_\_

5. If a fire results from a suspected terrorist “dirty” IED explosion which one of the following is an incorrect action?
- A. Let fire burn out and protect exposures
  - B. Position an aerial master stream with firefighter at tip to protect exposure fires
  - C. Ground based master stream may be tied and left unattended
  - D. Complete only steps 1,2 ad 3 of a collapse search and rescue plan

Answer: \_\_\_\_\_

**Answers to questions:**

**1. True; 2. C; 3. C; 4. D; 5. B**