## **Drill –Scan Area for IED/VBIED**

Task: Quickly and efficiently scan for IEDs and VBIEDs.

**Condition**: Given three minutes, scan a defined area for possible IEDs or a Vehicle-Borne Improvised Explosive Device (VBIED)s. Bomb technicians/handlers may be requested, and will arrive on scene in 25 minutes.

**Standards:** Assign sectors, scan, identify, warn/clear, and record (if time is available). Prepare to brief Bomb Technicians/Handlers upon arrival.

## **Performance Measures:**

- 1. If provided additional personnel to assist, quickly brief all responders and assign method and sectors for the search.
- 2. Quickly but efficiently scan the designated area for the following common indicators:
  - a. IED Indicators:
    - Packages, satchels, backpacks, bags, trash cans, etc.
    - Out of place/unusual/does not normally belong in current location
    - Left unattended/no known owner
    - Positioned waist-level or higher
  - b. VBIED Indicators:
    - Rental Vehicle
    - Registered out-of-state
    - Tinted windows
    - Chemical smell
    - Vehicle in unusual, peculiar, or incorrect location
    - Vehicle riding low/sagging
    - Body misshapen/appearance of recent modification/work done to vehicle
    - Odd paint scheme or markings
- 3. Mark anything suspicious. Ideas of ways to mark include:
  - a. Construction Cone
  - b. Police Tape
  - c. Small surveying flag
  - d. Spray paint/marker

- 4. Record, in as much detail as possible, the location, positioning, and description of any suspicious indicator/entity
- 5. Efforts to clear the area should utilize the standoff distance guide located at the end of this document.
- 6. Once bomb handlers/technicians/K-9 unit(s) have arrived on scene, pass all pertinent information recorded about the indicator(s) to the unit(s). If possible, diagram the space/location of the indicators to further prepare the bomb handlers/technicians/K-9 unit prior to investigation.



## **UNCLASSIFIED**



## Improvised Explosive Device (IED) Safe Standoff Distance Cheat Sheet

	Threat Description		Explosives Mass <sup>1</sup> (TNT equivalent)	Building Evacuation Distance <sup>2</sup>	Outdoor Evacuation Distance <sup>3</sup>
High Explosives (TNT Equivalent)		Pipe Bomb	5 lbs 2.3 kg	70 ft 21 m	850 ft 259 m
	CARDINAL S	Suicide Belt	10 lbs 4.5 kg	90 ft 27 m	1,080 ft 330 m
		Suicide Vest	20 lbs 9 kg	110 ft 34 m	1,360 ft 415 m
	Mar a to	Briefcase/Suitcase Bomb	50 lbs 23 kg	150 ft 46 m	1,850 ft 564 m
		Compact Sedan	500 lbs 227 kg	320 ft 98 m	1,500 ft 457 m
		Sedan	1,000 lbs 454 kg	400 ft 122 m	1,750 ft 534 m
		Passenger/Cargo Van	4,000 lbs 1,814 kg	640 ft 195 m	2,750 ft 838 m
		Small Moving Van/ Delivery Truck	10,000 lbs 4,536 kg	860 ft 263 m	3,750 ft 1,143 m
		Moving Van/Water Truck	30,000 lbs 13,608 kg	1,240 ft 375 m	6,500 ft 1,982 m
		Semitrailer	60,000 lbs 27,216 kg	1,570 ft 475 m	7,000 ft 2,134 m
	Threat Description		LPG Mass/Volume <sup>1</sup>	Fireball Diameter <sup>4</sup>	Safe Distance <sup>5</sup>
Liquefied Petroleum Gas (LPG - Butane or Propane)		Small LPG Tank	20 lbs/5 gal 9 kg/19 l	40 ft 12 m	160 ft 48 m
		Large LPG Tank	100 lbs/25 gal 45 kg/95 l	69 ft 21 m	276 ft 84 m
	PROPANE	Commercial/Residential LPG Tank	2,000 lbs/500 gal 907 kg/1,893 l	184 ft 56 m	736 ft 224 m
	-	Small LPG Truck	8,000 lbs/2,000 gal 3,630 kg/7,570 l	292 ft 89 m	1,168 ft 356 m
		Semitanker LPG	40,000 lbs/10,000 gal 18,144 kg/37,850 l	499 ft 152 m	1,996 ft 608 m

<sup>1</sup> Based on the maximum amount of material that could reasonably fit into a container or vehicle. Variations possible.

<sup>2</sup> Governed by the ability of an unreinforced building to withstand severe damage or collapse.

Assuming efficient mixing of the flammable gas with ambient air.

<sup>&</sup>lt;sup>3</sup> Governed by the greater of fragment throw distance or glass breakage/falling glass hazard distance. These distances can be reduced for personnel wearing ballistic protection. Note that the pipe bomb, suicide belt/vest, and briefcase/suitcase bomb are assumed to have a fragmentation characteristic that requires greater standoff distances than an equal amount of explosives in a vehicle.

<sup>&</sup>lt;sup>5</sup> Determined by U.S. firefighting practices wherein safe distances are approximately 4 times the flame height. Note that an LPG tank filled with high explosives would require a significantly greater standoff distance than if it were filled with LPG.