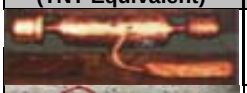
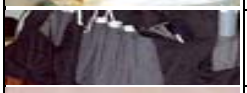
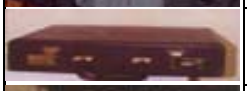
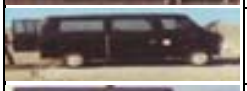
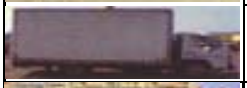
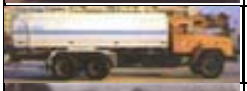
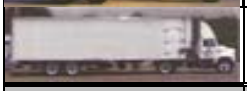
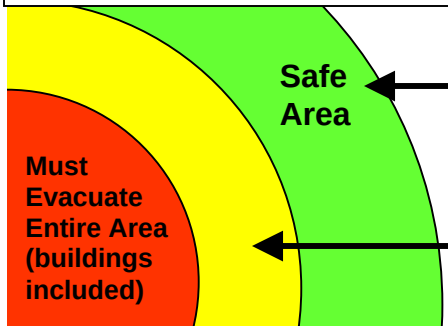
3d Marine Aircraft Wing Fusion Cell

Improvised Explosive Device (IED) Safe Stand-Off Distance Reference Chart

High Explosives (TNT Equivalent)	Threat Description	Maximum Explosive Capacity *1	Lethal Air Blast Range	Minimum Evacuation Distance *2	Maximum Evacuation Distance *3 (Falling Glass Hazard)
	**Pipe Bomb**	5 lbs. 2.3 kg	**25 ft.** **8 m**	**70 ft.** **21 m**	**850 ft.** **259 m**
	**Suicide Belt**	10 lbs. 4.5 kg	**30 ft.** **9 m**	**90 ft.** **27 m**	**1.080 ft.** **330 m**
	**Suicide Vest**	20 lbs. 9 kg	**35 ft.** **11 m**	**120 ft.** **37 m**	**1,360 ft.** **415 m**
	**Briefcase / Suitcase Bomb**	50 lbs. 23 kg	**40 ft.** **12 m**	**150 ft.** **46 m**	**1,850 ft.** **564 m**
	**Compact Sedan**	500 lbs. 227 kg	**100 ft.** **30 m**	**1,500 ft.** **457 m**	**1,500 ft.** **457 m**
	**Full-Sized Sedan**	1,000 lbs. 454 kg	**125 ft.** **38 m**	**1,750 ft.** **534 m**	**1,750 ft.** **534 m**
	**Passenger / Cargo Van**	4,000 lbs. 1,814 kg	**200 ft.** **61 m**	**2,750 ft.** **838 m**	**2,750 ft.** **838 m**
	**Small Delivery Truck / Delivery Van**	10,000 lbs. 4,536 kg	**300 ft.** **91 m**	**3,750 ft.** **1,143 m**	**3,750 ft.** **1,143 m**
	**Moving Van / Water Truck**	30,000 lbs. 13,608 kg	**450 ft.** **137 m**	**6,500 ft.** **1,982 m**	**6,500 ft.** **1,982 m**
	**Tractor-Trailer / Semi-Trailer**	60,000 lbs. 27,216 kg	**600 ft.** **183 m**	**7,000 ft.** **2,134 m**	**7,000 ft.** **2.134 m**

Liquefied Petroleum Gas	Threat Description	LPG Mass / Volume *1	Fireball Diameter *4	Safe Distance *5
	**Small LPG Tank**	20lbs. / 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**
	**Commercial 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**
	**Tractor-Trailer / Semi-Trailer**	40,000 lbs. / 10,000 gal. 18,144 kg / 37,850 L	499 ft. 152 m	**1,996 ft.** **608 m**

*1 Based on the maximum amount of material that could reasonably fit into a container or vehicle. Variations possible.
*2 Governed by the ability of a non-reinforced building to withstand severe damage or collapse.
*3 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.
*4 Assuming efficient mixing of the flammable gas with ambient air.
*5 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.



This is the preferred area for evacuation of people into buildings and mandatory for people outdoors.

All personnel must seek shelter inside a building (with some risk) away from windows and exterior walls, or move beyond the Maximum Evacuation Distance (Safe Area).