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[How Does the Most Powerful Sonic Weapon Work?](#)

It's used for crowd control and can cause a lot of pain without touching you



LRAD sonic weapon mounted on an armored Humvee belonging to the NYPD American Technology Corporation (ATCO)

Recent escalations of urban conflict and an increasing need for powerful, yet non-lethal weapons led to development of a sonic weapon that doesn't kill, but can make you pass out and even permanently deaf. Sonic weapons have been made popular by science fiction productions, but they are also used in reality, not to destroy buildings, tanks, but to injure, incapacitate, or kill an opponent. Although many real sonic and ultrasonic weapons are described as "non-lethal", they can still kill under certain conditions. The LRAD Weapon (Long Range Acoustic Device), produced by the American Technology Corporation (ATCO), is a sonic device that can emit loud noises, 50 times the normal human threshold of pain (120 - 140 dB). This causes extreme pain within 100 yards (90 m) of the device, can permanently damage ear-drums at a smaller distance and is effective up to 300 yards (270 m). A normal conversation reaches around 60 dB, a lawn mower generates a 90 dB sound, a safety override of the LRAD (considered potentially lethal) can generate a 151 dB burst. Simple high-intensity sound causes the inner ear to generate nerve impulses that register as sound. Since the inner ear also regulates spatial orientation, saturation of the inner ear by high-intensity sound may cause spatial disorientation. At low power, the system would cause physical discomfort, while increasing the power could induce nausea, vomiting and abdominal pains. A more powerful Russian counterpart of the 90s is considered lethal, since at maximum level, it can cause a person's bones to resonate, which can be quite painful and even deadly. The weapon is essentially a round directed acoustic beam device, 33 inches (83 cm) in diameter and weighing 45 pounds (20 kg) and it's used by the US Police, military for crowd control and to force a suspect to leave a barricaded building without touching him or putting SWAT teams at risk. It is also tested in regions of Baghdad, Fallujah and other regions in the world, to prevent possible terrorists from approaching sensitive areas or to disarm a particular individual. In November 2005, the cruise ship *Seabourn Spirit* was credited with repelling pirates who attacked the vessel with machine guns and RPGs about 160 km off the coast of Somalia.