

Disorientation Devices

Crowd-Control Weapons Series

Overview

Disorientation devices, also known as concussion grenades, flash-bangs, or stun grenades, are weapons that create a loud explosion and/or a very bright flash of light. Originally developed as a military weapon, the use of disorientation devices in crowd-control settings has increased significantly over the past several years. While their stated objective is to cause disorientation and a sense of panic, the potential for injuries caused by the pressure of the blast or by shrapnel from the fragmentation of the grenade is disproportionately high, and could even lead to death. Therefore, these weapons have no place in effective crowd management.

History

These explosive devices were initially developed by the British Special Air Service in the 1960s as training weapons, and they were later used for decades as military weapons. The transition from military operations to policing occurred over time. Their use in urban settings and on civilian populations is now more common.

How They Work

Disorientation devices are usually constructed like a conventional grenade, with explosive powder that ignites when struck by a fuse. The grenade is thrown and explodes after a roughly 1.5-second delay. The exploding magnesium-based pyrotechnic chemicals causes a very bright flash and a loud sound (160-180 decibels), which can cause temporary blindness, temporary loss of hearing, and loss of balance, as well as a sense of panic. Parts of the device can burst and travel as shrapnel.

Device Types

- Concussion grenades
 - Flash-bangs
 - Stun grenades
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Health Effects

Case reports, news media, and even police reports have identified the risks associated with disorientation weapons. Many of the reported injuries involve severe burns resulting from the weapons being fired at close range, in enclosed spaces, or in dense crowds.

- **Primary blast injury:** This results from pressure shock waves from the blast. These can cause internal injuries, especially of delicate membranes like the eardrum.
- **Secondary blast injury:** The explosion and fragmentation of objects can cause blunt and penetrating trauma.
- **Tertiary blast injury:** The displacement of air can push people into solid objects, causing blunt and penetrating trauma.
- **Quaternary blast injury:** Other parts of the explosion can cause miscellaneous injuries such as burns, respiratory injuries, crush injuries, and psychological trauma. In addition, crush injuries may result from the panic and chaos caused by large moving crowds that have suddenly become disoriented.

Pressure shock waves from stun grenades can cause internal injuries.

Legality of Use

International human rights law protects the right to freedom of assembly, including the right to hold public or private meetings, marches, processions, demonstrations, and sit-ins.

The state has a duty to protect those exercising their right to peaceful assembly from any type of violence, including violence from law enforcement agents and counter-protesters. As long as the purpose of the assembly is peaceful, incidental violence does not discharge the state from this obligation to protect.

International legal principles require law enforcement agencies to adopt rules and regulations for the use of force within the following parameters:

- The use of force must be minimized, targeted, proportional, and directed at de-escalating violence.
- The use of non-lethal incapacitating weapons must be carefully controlled.
- The deployment of non-lethal incapacitating weapons must occur in a manner that minimizes the risk of endangering uninvolved persons.
- Restraint must be shown in all use of force by law enforcement agents, with a view to minimizing injury and loss of life.

In addition, the state has an obligation to ensure that assistance and medical aid are rendered to any injured or affected persons at the earliest possible moment. International human rights principles have been violated if the use of non-lethal incapacitating weapons is not adequately regulated, or if the weapons are used in an indiscriminate manner.

Considerations and Policy Recommendations

- Firing disorientation devices for dispersal of crowds is inappropriate and can cause injury. Firing stun grenades directly into crowds or towards individuals should be prohibited.
 - Quality control and regulation of disorientation devices is poor and requires significant attention.
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