

Non-Lethal Weapons

The asymmetric warfare in which we and our allies are currently engaged frequently calls for less-than-lethal response to enemy action. The enemy hides among civilian populations who, willingly or not, serve as “human shields”. A major element of this propaganda war consists of provoking counter-attacks which will cause civilian deaths and destruction of homes, schools, houses of worship, etc., and exploiting this destruction through global news networks. In the 2006 Hezbollah/Israel war, for example, a standard Hezbollah tactic was to force their way into a Lebanese village, holding the local populace at gunpoint, if necessary. They would then fire a few salvos of Katyusha rockets into Israel and make their exit, leaving the villagers to suffer the ensuing air raid. Hezbollah “stringers”, working for the news agencies, would remain to take pictures of dead civilians and ruined homes. These were then broadcast around the world as evidence of Israeli brutality.

We may be sure that any civilian casualties caused by US action will be similarly exploited against us. The availability of non-lethal mechanisms helps to minimize the likelihood of such casualties. Anti-personnel measures such as tear gas have long been in use for quelling riots and disabling enemy forces in confined locations. Stun grenades and rubber bullets are similarly employed. To these may be added other chemical agents causing temporary unconsciousness without lasting ill effects, acoustic devices which blanket an area with an unbearably loud beam of noise, or weapons such as the Active Denial System, which uses a high power millimeter wave beam to cause an intense burning sensation in the skin.

Non-lethal mechanisms may also be directed at vehicles. In an attack by vehicle-borne improvised explosive device (VBIED), for example, it may be expedient to disable the vehicle, clear the area, and disarm the explosive device, rather than to fire at it, possibly setting off the charge. Similarly, if a vehicle seems to be rushing a checkpoint, it is generally better to halt it, if possible, without opening fire. This spares civilians make honest mistakes, as well as those used as “human shields” in probing attacks.

The concept of non-lethality may be extended to larger targets. During the Yugoslav intervention in the 1990s, a weapon was deployed which released a great quantity of graphite fibers over electrical power stations. The fibers settled into switches, transformers, etc., shorting them out, and, in effect, hitting the “off switch” on the power grid.

Current and proposed efforts in this area include:

- Multi-function warheads, including non-lethal modes
- Anti-traction materials (ATM), disabling wheeled vehicles by rendering the road surface slippery
- Area denial by non-lethal airburst (20mm shell)
- Anti-ship measures such as drag enhancement and rudder-locking
- Non-nuclear EMP disabling of vehicle electrical systems

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