

# The Police Use of

# LESS-LETHAL WEAPONS



*By Rick Parent, Delta Police Department*

When police officers find themselves facing a violent individual or superior numbers, the level of potential danger is increased significantly. As a result, the police officer must quickly disable the attacker(s) and improve the likelihood of control. In these instances, compliance tools such as pepper spray and impact weapons may provide the necessary means for the police officer to control the situation.

Unfortunately, as with any "weapon", there is always the risk of causing death or serious bodily harm. Beanbags and other less-lethal impact weapons are believed to be responsible for the unintentional killings of at least 12 individuals in the United States and Canada over the past 20 years. Many more individuals have suffered serious injuries that include broken bones, brain injuries, damaged spleens and injured eyeballs.

In some instances, the less-lethal weapon will never penetrate the skin but death nonetheless results. One such case was exemplified where an individual was killed after being struck in the throat by a beanbag projectile. In another instance, an individual was killed by a beanbag round after being struck in the chest. The non-penetrating round impacted the recipient's sternum resulting in a fatal cardiac arrhythmia. In two other cases, individuals died after being hit in the chest with a projectile fired from an Arwen. The impact in both cases fractured ribs, resulting in internal hemorrhage and death (Ijames, 1997).

Ideally, a less-lethal weapon will incapacitate the perceived threat to the officer while inflicting only minor injuries to the attacker. In this regard, the manufactures of less-lethal weaponry typically state that their products are accurate, safe and effective, if used properly. This would include discharging the weapon at a safe distance as well as having the less-lethal projectile strike the appropriate part of the human body. However, unlike "laboratory testing", police personnel often deploy less-lethal weaponry under less-than-ideal circumstances, facing a variety of issues that include surroundings, weather, human stress and fatigue.

Over time, police personnel have learned that the technological advances made by manufactures in the laboratory often require refinement and adaptive training. For example, the original "square" beanbag round consisted of a sack that was the size of a tea bag and filled with lead shot. Difficulty occurred in deploying the round, as there was no guarantee that the beanbag round would hit its intended target at the correct speed and with correct positioning. In some instances, the square beanbag would not unfurl in the correct manner upon discharge, at times resulting in the round impacting in a manner that would cause serious bodily harm or even death.

## Case # 1 – Death by Beanbag

In this case, police were summoned to an apartment complex to deal with a disturbance. Upon police arrival, they located a 34-year-old naked individual in his one-bedroom apartment, screaming wildly and waving a bloodied knife. The individual had slashed his wrists and severed his penis with a kitchen knife in a bizarre suicide attempt. The male was behaving irrational and ignoring police commands, refusing to drop his knife as he bled profusely.

A highly trained tactical unit arrived on the scene and attempted to negotiate with the individual but to no avail. When the individual attempted to harm himself further police personnel decided to shoot the male with a beanbag shotgun in order to save his life. One beanbag round was discharged, striking the male in the chest just above his heart. The impact of the beanbag round caused the male to collapse to the ground where medical personnel applied treatment and rushed the individual to the hospital.

Unfortunately, shortly after arriving at the hospital, the individual died. Owing to the self-inflicted injuries and the resulting severe bleeding, medical staff listed the cause of death as suicide. The next day an autopsy was conducted to verify the cause of death. Surprisingly, the autopsy revealed that the individual died when the 42-gram lead sac beanbag penetrated the skin and embedded itself in the male's chest. A "fist-sized" cavity was discovered where the beanbag round had impacted above the heart area.

A subsequent investigation into why the death occurred speculated that the beanbag never unfolded after it was fired from the police officer's shotgun. As a result, the beanbag likely struck the individual in the shape of an "arrow head", ultimately causing his death. It is unknown why this occurred. Regardless, it is believed that the police acted appropriately under the circumstances. They had discharged the beanbag at a safe distance and, in accordance with the manufacture's specifications. The beanbag had impacted the chest area of the intended recipient with maximum effect.

## Case # 2 – Serious Injury by Arwen Gun

In another incident, a riot broke out in the downtown area of a large city. As a result, a crowd control unit was dispatched to the scene equipped with a variety of less-lethal weaponry. The purpose of the crowd control unit was to identify key agitators and instigators in the riot, confronting them in a manner so that they would disperse. Police tactics for dispersal included the deployment of gas and Arwen projectiles.

As the crowd control unit began to confront members of the riot, one specific individual came to the immediate attention of the crowd control

unit. This individual would not leave the riot and instead confronted and taunted the police. The subject stood in front of the riotous crowd acting as a ringleader, throwing a stick at the police and then a bottle of liquid. He then adopted a fighting stance and brandished a large screwdriver at the police. His actions were encouraging other individuals to riot.

As a result of the aggressive behavior displayed, a decision was made to fire an Arwen projectile at the subject so that he would cease his aggression and disperse from the scene. Upon being struck in the back by the projectile, the subject left his position and went to the sidelines of the riot.

However, rather than leave the location, the subject returned to frontlines of the riot, some 20 minutes after the police Arwen projectile had struck him. Once again, this same individual confronted the police crowd control unit in an aggressive manner with his screwdriver. He began swear and taunt the police by lifting up his shirt and showing his bruised back, telling the police to shoot him again. The subject then began to dance on the street, bobbing and weaving in an apparent attempt to avoid the crowd control unit's Arwen marksman.

Once again, a decision was made to fire an Arwen projectile at the individual so that he would leave the area. Once again, the officer aimed for the center body mass area of the subject, discharged his Arwen gun at the agitator. However, during this occurrence the individual suddenly crouched when he saw the officer fire his Arwen round. Due to his sudden and unexpected actions, the Arwen projectile struck the individual in the head causing serious injuries. The individual was taken to hospital for treatment and was later convicted in criminal court where he was ordered to serve a prison sentence.

The rioter subsequently sued the police agency by using government legal aid funding, while he was serving his prison sentence. Initially, the courts ruled that the police department was negligent in the application of the less-lethal weapon, granting the plaintiff \$25,000.00 for the injuries that he received as a result of the weapon. However, subsequent judicial appeals rejected the award stating that the police acted appropriately in the deployment of the less-lethal weapon, under the circumstances.

### Case # 3 – The Police Firearm as Less-Lethal Force

Finally, in another incident police utilized their firearm as a means of less-lethal force during a botched robbery that had evolved into an apparent suicide incident. In this case, police were alerted to a bank robbery that had just occurred. A 22-year-old, male bank employee had staged a bizarre act of robbery at his place of work. The individual, who was employed as a teller, lit a small fire in the storage room of the bank at closing time as a distraction to staff workers. When fellow employees gathered in the storage room area to put out the fire, the culprit pushed his fellow tellers out of the way while grabbing a large parcel of money. He then placed the money in a duffle bag and ran out the door of the bank, fleeing on foot.

Another employee observed the actions of his co-worker and gave pursuit on the street. Eventually, the employee located and cornered the fleeing co-worker on the street. As the employee went to approach the culprit, the individual reached into his pocket and fumbled open a hunting knife stating, "I'm going to kill myself". Upon seeing the knife and hearing the statement, the pursuing bank employee backed off,

following the culprit from a safe distance as he ran down the street into a shopping mall area. At one point during the pursuit, the culprit stopped, dropped to knees and took off his shirt. He then began to inflict wounds into his chest and neck area with his knife.

As this was occurring, police units were responding to the scene. The initial attending officer arrived at the scene and exited his patrol vehicle. Upon seeing the patrol vehicle, the suspect got up off his knees and removed his bloodied shirt while clutching his knife in his right hand. In response, the officer commanded, the suspect to "Put the knife down". Instead of obeying the police officer's commands, the suspect began to once again stab himself in the neck and chest area with his knife say "Come on, Come on" to the officer. As the officer watched, blood sprayed and then readily flowed from the individual's neck area down to his waist.

The police officer, fearing that the individual would eventually kill himself, fired one round from his service pistol striking the individual in the right upper arm area. Upon being struck by the bullet the individual collapsed to the ground. The police officer then removed the individual's knife and applied first aid to his wounds until medical emergency services arrived. While laying on the ground the wounded individual turned to the officer and stated, "Let me die."

The individual was then transported to a hospital where it was learned that he had suffered six stab wounds to his chest as well as three stab wounds to his neck. One wound was deep and had penetrated his lung. In addition, the individual was treated for a single gunshot wound to his upper arm. Later, his condition was stabilized and a psychiatric assessment was ordered.

In explaining his actions the police officer later stated, "I had to shoot him. He was slashing his body and throat, blood was gushing out, and I had to stop him. He was going to kill himself. I aimed for his shoulder."

### The Future of Less-Lethal Technology

As a result of the problems associated with square beanbag rounds, most police agencies in the United States and Canada have adopted the "super sock" beanbag round. Unlike the sharp and square edges of the square beanbag round, the super sock resembles a sock filled with lead shot. When deployed under ideal conditions, it is designed to eliminate the tragic consequences associated with the beanbag. However, even with this new style, there have been three people killed during a two-year period.

Other options include the "goo" or sticky gun, which is basically a delivery system of sticky foam that is deployed to glue a person in place. However, complications abound with this option as the sticky substance is difficult to deploy and even more problematic to clean up. Police personnel would be forced to deal with the issue of contamination due to the "goosey" substance that would require removal in order to transport the arrested individual.

The US Pentagon is one of the locations where research is being conducted for the purpose of providing more less-lethal options to U.S. armed forces. While most of this technology is in the developmental stage, it is nonetheless an indicator of options that may be available to North American police agencies in the near future.

## Future less-lethal technology includes:

- *Webs and Nets:* State of the art technology in this area includes a 3-meter wide Kevlar net known as "Webshot". The net is packed in a cartridge and fired from a special shotgun allowing the disabling and capture of an individual. The net can be deployed so as to entangle targets as far away as 9 meters.
- *Malodorants:* Formulated smells that are so repellent that they will cause an individual to quickly leave the area in which the smell is deployed. Scientists have tested the effectiveness of odours that include vomit, burnt hair, sewage, rotting flesh and a potent concoction known euphemistically as "U.S. Government Standard Bathroom Malodors." These odours could be utilized by police as a less-lethal weapon in residential areas where an individual has barricaded himself or herself or in public spaces where rioters or unruly individuals have gathered.
- *Anti-traction Material:* A sprayable anti-traction gel allows the deployment of this technology on the surface of an object causing it to be slippery to human contact. If sprayed on a flooring surface it becomes virtually impossible for an individual to walk upon being described as "slippery as liquid ball bearings." If sprayed upon a door handle, it becomes too slippery to turn. This non-toxic and biodegradable product has 12-hour effectiveness and could be utilized by police personnel in the apprehension of a fleeing individual or in containing an individual until they could be apprehended.
- *Tuneable Projectiles:* This would include softer and flatter bullets that could be "adjusted" by the police officer on the street, depending upon the situation that they were facing. This technology would allow the "dialling in" of penetration power so that the bullet discharged from the officer's firearm could be adjusted for harder or softer impact.
- *Directed Energy Weaponry:* This would include technology that allows a tight, focused beam of microwave energy to "flash-heat" an individual from a distance. The system uses electromagnetic millimetre waves which have the ability to penetrate 0.04 cm of human skin. An individual hit by the wave of energy feels an intense blast of heat that is approximately 54 degrees Centigrade. While directed energy beams do not burn flesh and are considered harmless they do create an unbearably painful burning sensation to the individual upon whom it is deployed. Like firearms and other current less-lethal weaponry, the directed energy beam would allow more options to the police officer in the field.
- *Pulsed Energy Projectiles:* Somewhat similar to the science fiction "ray gun", this technology superheats the surface moisture around a target so fast that it literally explodes, producing a bright flash of light and a loud bang. The effect is like a disabling stun grenade; however, unlike a stun grenade, pulse energy projectiles can be deployed from a safe distance and travel at the speed of light with pinpoint accuracy. In addition, development in this area includes a flashlight-size device that transmits a powerful electric current along a beam of ultraviolet light. Similar to the Taser, this electric current could be deployed upon a human target causing them to be disabled. However, unlike the wired Taser with its maximum range of roughly 20 feet, this pulse energy current would be "wireless" with an effective range of roughly 2 kilometres.
- *Weaponized Drugs:* This technology would allow the deployment of anti-depressants, opiates and other "club drugs" that could be administered to individuals or groups by police personnel for the purpose of controlling irrational behaviour or unruly crowds.

However, critics of the new technology that is being pioneered by the U.S. military are quick to note that some of the current research into less-lethal, technology is illegal under international law. In addition, human rights activists add that this newfound technology also presents avenues for misuse and abuse by those in power. "Street punishment" and even torture are possible. While these products are currently under development for military purposes they may eventually find their way into the hands of police personnel in the near future in some shape or form.

## Summary

In summary, while beanbags and other less-lethal weaponry are not without controversy, it is important to emphasize that these weapons have saved dozens of lives since their inception into street policing in the 1960's. Police personnel have been afforded with technology that has allowed them to intervene in potentially dangerous situations without placing their lives in immediate danger, thereby reducing police injuries and deaths. In most cases, suspects have been subdued and apprehended without being shot by the standard police issued firearm, thereby avoiding serious injuries and death. In the near future, evolving technologies will play an ever important role in the escalation of force, providing police personnel with further options in seeking compliance and control.

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