

**The Bill Blackwood
Law Enforcement Management Institute of Texas**

**Impact Munitions:
A Less Lethal Force Option Comparison
For Harrison County Sheriff's Office
Use of Force Policy**

A Policy Research Project
Submitted in Partial Fulfillment
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ABSTRACT

The legal liability in use of force scenarios, especially in a situation where deadly force could conceivably be a justifiable option, possibly continues to be the most tested issue in our courts.

Today, it is paramount for law enforcement agencies to keep abreast of new, emerging technologies, the advantages (and disadvantages) of them, as well as proper training in their uses. Just as much, the paper trail left by litigation should be examined to help develop a strong organizational policy for field personnel to follow.

The purposes of this study were to identify, analyze and if possible test products of less lethal status and examine court decisions involving less lethal force options, then select the most relevant equipment and training options for inclusion in Harrison County Sheriff's Office operating policy.

This study focused primarily on identification of a force option available to deal with a borderline deadly force situation and outline the deployment of such that satisfies current case law and budget constraints.

For this extension of force options for field personnel in Harrison County this writer recommends the adoption of the 12-gauge impact munitions known as "bean bag" rounds to fill a void in the tools deputies have at their disposal. The simplicity and relatively low price of these less lethal loadings make them attractive to both the budget manager and to the civil attorney delegated to defend the county and deputy upon their use.

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Introduction

With each incident involving a peace officer in today's litigious minded atmosphere the degree of force used in the course of duty is scrutinized by the public, the media, and the courts. Not only is this an issue of public safety but also that of officer safety. There are many instances where a peace officer faces force option borderlines and must be able to use the least harmful to the actor but the safest to himself. Having this in mind the modern peace officer must be provided with and trained in the use of any tool or practice that concurs with the elements set forth by the courts of this nation with relation to allowable amounts of force used to satisfy a specific situation.

The present force policy of Harrison County Sheriff's Office (HCSO) may have fallen behind the technology currently available to the law enforcement profession. These new technologies must be given consideration as to how they will benefit the peace officers of Harrison County and how the courts will interpret their use. This research is intended to identify additional force options to be added to the HCSO use of force policy continuum.

The largest gap in use of force scenarios seems to be in handling a subject who may hold peace officers at bay by some means where a direct, hands-on approach is not a viable or safe proposition. This could include a mental subject, suicidal individual or a moving hostage situation. Possible force options and their use in such situations will be examined here. Also considered are legal ramifications resulting from the use or non-use of such products.

The results of this research will be made available to the Sheriff and command staff of HCSO for consideration of policy updates in this area.

Sources of information drawn upon shall include research gleaned and derived from law enforcement journals, legal opinions, surveys, product tests and manufacturers of less lethal equipment.

This investigation, inclusive of concerns relating to initial acquisition, training and civil liability issues, will be considered to find the most effective additions to the use of force continuum of this organization. It is hoped that HCSO will adopt this option as policy. This research should show that personnel supplied with the proper technology and knowledge of the correct deployment of such will reduce use of force litigations and lost-time incidents where the peace officer is injured in these force situations.

Historical Context

Throughout the evolution of law enforcement, practitioners have searched for the "magic bullet" that will make voluntary compliance the norm in each situation where a police-citizen physical confrontation is inevitable. Gone are the days when it was accepted practice for law enforcement officers to administer a little "street justice" when working a call for service. In the last few decades police have had to move to a kinder, more gentle way of achieving a peaceful end to a variety of situations. (Miller 1995)

Virtually gone are the slapjacks, brass knuckles and the billy club. A shift in the courts toward civil rights caused a backlash in the way the peace officer conducted himself and the way the agencies trained and equip personnel, therefore launching another search for the next "magic bullet" and the cure it will bring police.

Legal Context

During any police-citizen interaction, all elements of use of force statutes within the Texas Code of Criminal Procedure must be satisfied as well as federal codes dealing with an individual's personal liberties protected under the U.S. Constitution.

When training in and using force against another person peace officers must take into account the provisions outlined in the Civil Rights Act: Title 42 (1983). To avoid criminal and civil liability the officer must consider the need for the application of force, the relationship between the need for the force and the force used, the extent of the injury inflicted, the nature of the offense, the suspect's behavior prior to the use of force, or action by third parties present. Also considered are the physical odds against the officer, the availability of alternative actions, whether the force used was applied in a good faith effort to maintain the situation or disperse actors and, finally, whether the force was applied maliciously or sadistically for the purpose of causing harm.

Training seems to come to the forefront of suits challenging the amount of force used by law enforcement. In *Canton v. Harris* the Supreme Court ruled that it is the duty of the employing agency to train officers in their core tasks. Furthermore, if the agencies do not train the officer, then they must obtain the proper training on their own. This ruling seems to have been carried through to *Davis v. Mason County* where officers were ruled to have had adequate training on the technical components of the use of force but were lacking in adequate training on the Constitutional limits of the use of force in effecting arrests.

When, exactly, an individual is under arrest has been defined in *California v. Hodari*.

This case tells us a person is under arrest when there is the physical use of force by an officer, or when the person submits to the assertion of authority.

Proper training seems to need the inclusion of tactical considerations. (Pilant 1996)

In *Quezada v. County of Bernalillo* courts ruled that an officer may be held liable under common law negligence principles for putting himself in a situation which required the officer to use deadly force against an armed suicidal citizen. This facet carries a double-edged sword in the instance of a disturbed person trying to commit suicide-by-police. The situation must be dealt with but when confronted with the dilemma the *Quezada* ruling poses, does one try to resolve the problem by negotiations or other means or simply walk away? Either choice could possibly place the peace officer and agency in a situation for a negligence suit. (Reyes 1999)

Four elements must be proven to conclude negligence. The first being that there was a legal duty or obligation, recognized by law, requiring the officer, the supervisor, or the administrator to follow a certain standard of care to protect the plaintiff against unreasonable risks. Second, that there was a breach of that duty. Next, that the breach of the duty was the main legal cause of the plaintiff's injury. Lastly, the plaintiff must have suffered actual damage or loss as a result of the above breach. (Ludlum 1997)

Theoretical Context

Armed with the above information, peace officers and the trainers who are responsible for imparting necessary facts and practices to field personnel to help avoid possible civil repercussions may find themselves duly confused.

When confronted with a situation where there is a crucial force decision to be made,

generally, the luxury of time does not exist for reflection on the best methods to employ. But where the scenario is on hold or slowly unfolding there are new devices, when used correctly, which can be used to subdue the actor(s) momentarily or completely that are less likely to cause death or severe bodily injury. (Stevens 1994) These are the situations and products intended to be addressed within this research.

With the rapidly evolving state of technological advances in our present era, many new products have burst onto the pages of equipment catalogues and mail-outs, hailing the contribution each will make to the profession of law enforcement. One must be careful to wade through these products to find the most efficient and relevant to each individual agency's needs and capabilities.

Review of Literature or Practice

Law enforcement agencies nationwide now employ a variety of less lethal weapons thought to be the best application for their situation or method of operation. A less lethal weapon is generally defined as a weapon designed to have a minimal probability of causing death, but can result in death if used inappropriately or under unusual circumstances. (Hayeslip, Preszler 1993) NIJ studies show that of municipal agencies polled, 77% employ some type of impact weapon. This could be a baton such as the ASP, PR-24. Of those polled, 70% allow chemical agents such as Mace or one of the OC pepper spray variants. The curve plunges with electrical devices at 22%. Included here are the stun guns and tasers. Restraining devices come in at 20%. In this area are found the various hobbles, chains and cuffing devices meant to contain or restrict movement. These numbers are closely mirrored by Sheriff's Offices usage with 78%, 69%, 34%, and 26%,

respectively. State Police agencies came in a bit lower with 65%, 61%, 4% and 25% in the same categories. The uncertainty of how heavy charges of electricity may affect different subjects seems to move many away from these devices. Sheriff's Offices may survey above the other types of agencies in this area due to the increasing use of shock belts in courtroom settings. With attacks on officials in courtrooms, the shock devices seem well suited to the instantaneous control of a violent person with as little contact with bystanders as possible. For the street officer there is certainly a time when the use of an electrical device is warranted. One such electrical unit marketed as the Air Taser can end a confrontation where it is not safe or feasible for an officer to lay hands on an actor. This device is merely a stun gun with an attached cartridge that fires two needle-like electrodes into the target. A button is then pressed allowing an electrical charge to pass down the wires into the subject hopefully rendering him immobile and sufficiently stunned long enough to be taken into custody. The devices are not recommended for use much beyond 50 feet due to the stability of the electrode's flight to the target. If the intended target moves quickly the sharp projectiles may land in an eye or the head. Both would have understandably deep repercussions for the agency and officer. Replacement electrode cartridges are sometimes supplied to agencies at no cost if the unit was used in a felonious scenario, otherwise a current stock must be kept and rotated. This option could be expensive for any agency especially if regular training is performed as it should be. (Pilant 1996)

As of late a new product line has come onto the market. These items have been dubbed "impact munitions". Most are in the form of a 37mm cartridge, a hand-deployed

grenade or in a 12-gauge shotgun round. A variety of dispersants are available in each unit. Chemical agents such as pepper spray (OC) or tear gas (CS or CN) are packed in some. Others may hold rubber buckshot, rubber slugs, wood "batons", or a tightly sewn bag containing #9 lead shot. For examples of each of the above please see Appendix 1.

Most law enforcement agencies polled keep some stock of the above agents for critical incidents and riot situations in public or jail settings. Generally these are the 37mm rounds used in a shoulder fired launching device. The launchers for these devices come in the form of a single shot version or the six shot repeating unit.

Specialized training is necessary for use of the 37mm munitions, not to mention the fact that firing one of these weapons can be slightly brutal to the operator. Any personnel dispensing these munitions must be highly trained due to the very nature of the weapon. The users must also be protected from the projectiles and agents in the rounds. The addition of protective clothing and some type of breathing apparatus must be employed. (Appendix 3)

Of these munitions options only the grenades lend themselves to quick deployment by street officers (Appendix 4). The drawback would be the accuracy on the intended target, dispersion area and the possibility of affecting innocent third parties. Another factor to consider is the grenade device is not designed to immobilize the target. It is possible the subject will have a debilitating reaction to the dispersing chemical or the person may happen to receive a very close presentation and is immobilized by concussion.

Most agencies polled for this research equip street officers with a 12-gauge pump shotgun and provide regular qualification with the weapon. The 12-gauge impact loads

available from various manufacturers are compact and can be directed at a specific target with fair accuracy. A bag of lead shot in the BR-23 loading by Defense Technologies (Appendix 3) is directed to the suspect's torso causing an incapacitating blow upon impact. In extreme emergency where deadly force is absolutely required, the load can be directed to more lethal portions of the body. Bean bag deployment in a situation consists of swapping loads in the duty shotgun. The amount of time needed for deployment of a specially equipped team is not a factor now. Only another unit equipped with lethal ammo for backup is needed.

Discussion of Relevant Issues

The key issue to be resolved with this research is to identify a less lethal force option that allows the deputies of HCSO to deal with persons in special situations where deadly force may be questionable.

The device must be one which is simplistic enough for the average peace officer to be able to use proficiently and in the manner intended by the manufacturer. The method must be one that even if used not completely to form will be less likely to be fatal to the subject but achieves the desired response. In reality any situation can go awry no matter how well equipped and trained the officer may be. The optimum weapon would be one that is used to prevent the termination of life but could be used in a deadly manner to defend the officer and third parties if the necessity should present itself. An item of this nature needs to be compact and not require the deployment of a number of tactical officers to administer its use.

As with all agencies, cost is a major factor in the acquisition and deployment of

most tactical weapons. Any device considered under these criteria would have to be relatively inexpensive so as to provide each officer in the field with a sufficient representative of the technology adopted as well as the training in its use. Ideally, one or two trainers within the agency might attend certification through the manufacturer or other accredited training facility then disseminate the knowledge to field personnel through in-house certification sessions. Costs should be low enough to allow for replenishment and rotation of stocks as needed through use and as suggested by the product manufacturer to maintain liability levels relative to product shelf life. (Miller 1995)

Possibly the most important factor to consider of any product is how the use of the item will be seen by a civil court after the incident is culminated. Any item a peace officer shoots, sprays, swings or throws at another human being must be the least necessary to conclude the contact with that person.

Any capable civil attorney will dismantle the item itself, he will question the officer at length about proper use in relation to any training received in practice and policy. The same procedure would be followed if the officer shot the suspect with a service weapon. In about any elevated use of force deployment, the actor will likely try to recoup any monetary losses suffered criminally with a healthy lawsuit. Most hopeful plaintiffs with dollar signs in their eyes don't think the suit will have to go full circle, counting on the entity that supplied the dose of pain to pay them enough money to simply go away thus avoiding the expense of time-consuming litigation. Though still requiring some outlay of capital, it seems more governmental agencies are taking a stand

to combat petty suits. Assuming that some amount of money will be paid to someone, be it attorneys or a plaintiff, most agencies prefer to make the initial expenditure necessary to test the waters that the suit is floated upon.

Therefore any option adopted must be backed by a sound agency policy as well as regular training in field use. When personnel work within the scope of a well written policy formed using current legal decisions, the likelihood of winning litigation based on summary judgment increases exponentially.

A detailed examination of cost to acquire and maintain a stock of any less lethal weapon option, inclusive of training for legal certification, must be presented and justified to budget managers and command staff.

Considering the aforementioned products, in the electrical category, the Air Taser entails a cost of around \$400.00 for each unit plus a stock of replacement cartridges which must be rotated every five years. Relating to HCSO, a start-up battery of these devices for 30 field deputies would cost \$12,000.00 plus a training fee to certify deputies. These would be readily deployed upon a moment's notice but the uncertainty of the electrode flight is of major concern, not to mention the effect of the electrical charge on different individuals.

The 37mm impact munitions vary in price from \$15.00 to \$25.00 per round depending on the loading. The launchers for these devices range from \$579.00 for a single shot version on up to \$1500.00 for the six-shot repeating unit. This weapon has its place in an agency's arsenal but is not practical for the intended need here. The only conceivable option with the 37mm unit might be to distribute a launcher and supply of cartridges to

supervisory personnel as they would be on the scene of a critical incident. Even so, for HCSO's eight field supervisors to be equipped with just a single shot launcher would cost \$4632.00 plus a battery of cartridges and training fees.

Grenade units average \$42.00 each and generally must be purchased in cases of ten. To deploy the grenades for the thirty deputies at three units each would cost \$3780.00 plus a breathing apparatus for each deputy if an irritant was employed. Training with the grenade is not usually passed from an agency trainer to field personnel but at specialized schools. These munitions as well as the 37mm fodder are probably best left to SWAT team use.

Moving to the 12-gauge impact rounds, different loadings can be obtained at an average cost of \$5.25 per round. Typically, this less lethal option is sold in packs of five. Providing each deputy with a pack would have an initial expenditure of \$787.50 for the product and about \$250.00 per trainer to be factory certified. At this price, recurrent training could be done during mandatory firearm qualifications. A stock could be kept on hand and rotated at minimal cost per cycle. Expiring rounds could be turned in to use for requalification.

The round is much more user-friendly by nature making it more acceptable to field personnel. Caution will be paramount in selection of ammo for the shotgun's loading before the tour of duty and in switching to another load. Manufacturers help out here by making the cartridge of a clear plastic, enabling the user to see the contents of the load.

Conclusion / Recommendations

The purpose of this research has been to examine different facets of new, less lethal

technologies available to law enforcement today. This topic becomes more relevant each time the need for higher levels of force are brought against a suspect. Less lethal force options will eventually apply to all law enforcement agencies as civil attorneys become aware that another course could have been followed instead of inflicting a gunshot wound on his client.

The main issue addressed pertaining to HCSO policy was a less lethal option that would be used in handling subjects where the need for deadly force could be seen as borderline. There are many situations that a deputy is faced with when a subject may be mentally deranged or armed but not an immediate threat. This person has to be dealt with but is not approachable without the possibility of escalating the situation to where harm to the deputy or suspect is eminent.

After researching the options mentioned in this writing, the 12-gauge "bean bag" loads fill the criteria set out in relation to the needs of HCSO personnel. The initial and recurring cost is minimal as compared to other devices. The bean bag load is compact and readily deployed in as little time as it takes to load them into the standard service shotgun carried by all field deputies. The shorter barrel service shotgun actually increases the striking power and accuracy of the BR-23 load due to less friction on the shot bag as it passes down the length of the barrel. No unique equipment is necessary to utilize the device and training required is minimal. When applied correctly, the small bag of lead shot strikes a target with several hundred foot-pounds of force usually incapacitating the subject momentarily, giving officers the opportunity to subdue the person. The bag does not enter the body therefore eliminating open wounds and blood-related concerns.

The bag leaves a contusion or possibly a fractured rib upon correct use. In extreme emergencies the load can be directed toward a lethal spot on the body to totally eliminate the threat at hand. In any use, when medical personnel are summoned, as should be, they will not have to deal with the major trauma situation of a gunshot wound. Deputies can work from a safe distance therefore reducing the likelihood of escalating the situation or sustaining an injury to themselves and exposure to any blood-borne pathogens incidental to open wounds seen in these scenarios. Likewise, the deputy will not have to deal with the trauma suffered upon taking a life as well as enduring the almost-certain civil action that follows. (Geberth 1993)

It is the recommendation of this writer that based upon the above research, the Sheriff and command staff of Harrison County Sheriff's Office consider and adopt the 12-gauge "bean bag" impact load as part of the organization's use of force policy continuum.

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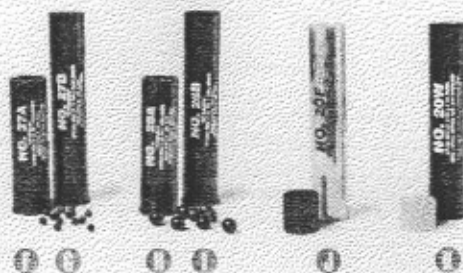
37/40 NM ROUNDS



► 37/40 mm

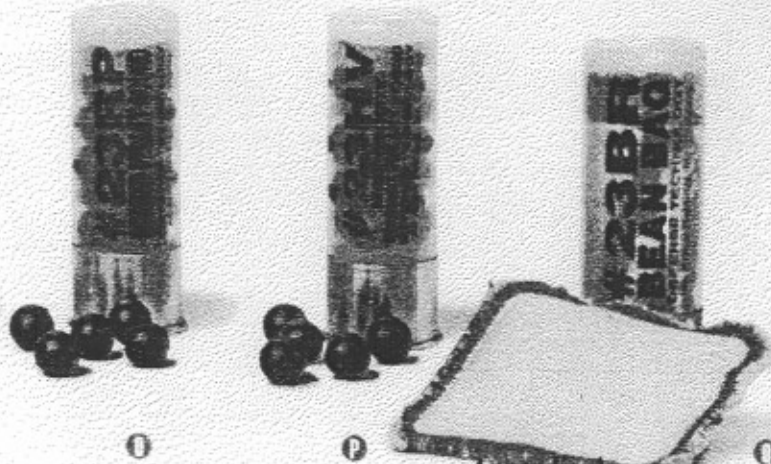
- ① No. 40BR
Bean Bag Round
- ① No. 40F
Multiple Foam Baton Round
- ① No. 40W
Multiple Wood Baton Round
- ① No. 40A
Multiple .32 Cal. Rubber Ball Round
- ① No. 40B
Multiple .50 Cal. Rubber Ball Round

37/38 NM ROUNDS



► 37/38 mm

- ① No. 27A
Multiple .32 Cal. Rubber Ball "Stinger" Round
- ① No. 27B
Multiple .32 Cal. Rubber Ball "Stinger" Round
- ① No. 28A
Multiple .60 Cal. Rubber Ball "Stinger" Round
- ① No. 28B
Multiple .60 Cal. Rubber Ball "Stinger" Round
- ① No. 20F
Multiple Foam Baton Round
- ① No. 20W
Multiple Wood Baton Round

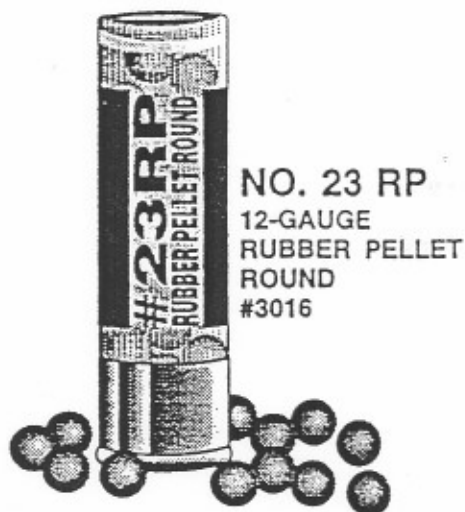


► 12 gauge

- ① No. 23PS
Rubber Pin Stinger Round
- ① No. 23WB
Single Wood Baton Round
- ① No. 23SB
Single Ball Round
- ① No. 23RP
Rubber Pellet Round (Standard Velocity)
- ① No. 23HV
Rubber Pellet Round (High Velocity)
- ① No. 23BR*
Bean Bag Round

* Please Ask About
Ethics and Benefits
Round

Appendix



NO. 23 RP
12-GAUGE
RUBBER PELLET
ROUND
#3016

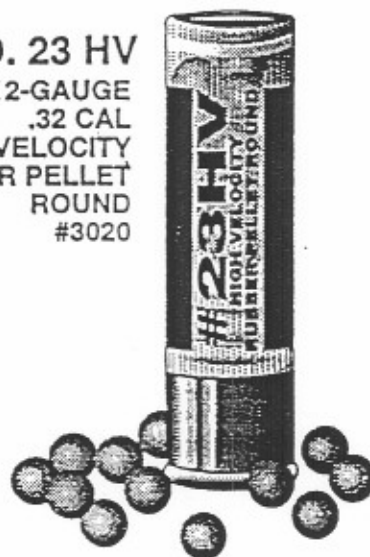


NO. 23 SB
12-GAUGE
SINGLE .60 CAL
RUBBER BALL
ROUND
#3017



NO. 22 TKO
(TACTICAL KNOCK-OUT)
12-GAUGE
FRANGIBLE SLUG
#3105

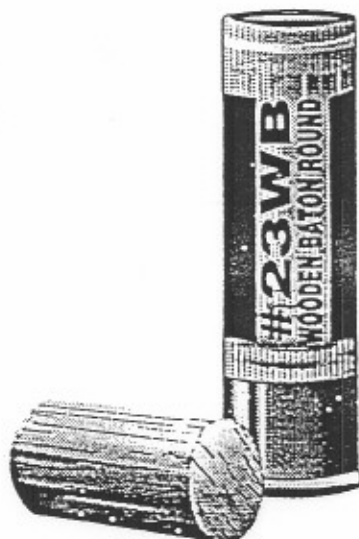
NO. 23 HV
12-GAUGE
.32 CAL
HIGH VELOCITY
RUBBER PELLET
ROUND
#3020



SPECIALTY ROUNDS



NO. 23 RS
12-GAUGE
RUBBER SABOT
ROUND
#3015



NO. 23 WB
12-GAUGE
WOODEN BATON
ROUND
#3018



NO. 23 BR
12-GAUGE
BEAN BAG
ROUND
#3025



No. 23BR - BEAN BAG ROUND 12 Gauge

Product Specifications:

(Subject to change without notice. All specifications are averages.)

Diameter: 12 gauge
Length: 2.6 inches (6.6 cm)
Projectile: 1 Single Bean Bag
Total Weight: 1.79 oz. (59 grams)
Velocity: 280 fps (average)
Maximum Range: 150 feet (45.8 meters)
Max. Effective Range: 50 feet (15.3 meters)
Warranty: 4 Years From Date of Mfg.

Submunition Specifications:

Size: 2x2 inch square
Material: Heavy Cordura® Nylon
filled with #9 shot.
Weight: 1.44 oz. (41.0 grams)

Shipping:

3025

UN Number: 0339 Cartridges for Weapons,
Inert Projectile
HAZ/COM Class: 1.4C
Explosive Content: 0.22 grams

Product Code: 3025

Operation: Upon firing, bean bag round is projected down range to target. Designed to be direct fired (see page C-15).

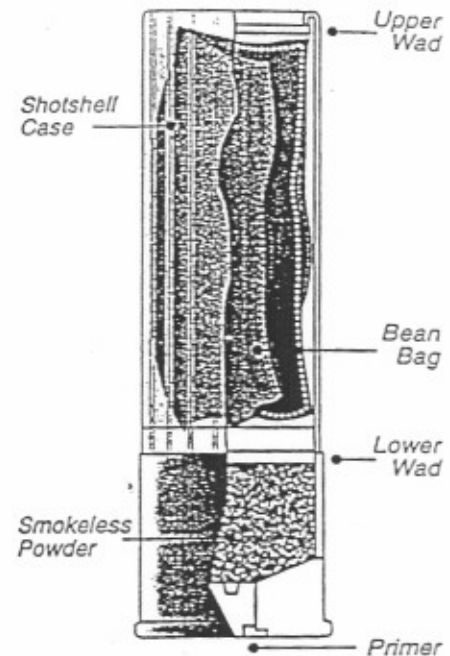
Applications: Extremely effective against individually selected targets or subjects who demonstrate violence or aggression. Effective for dispersement or routing of individuals in crowd control or civil disturbance situations.

The No. 23BR round is very effective in "suicide-by-cop" situations or against individuals threatening suicide. In these situations where the subject is in possession of a firearm, appropriate back-up measures must be in place.

Notes: As a direct fire munition, minimum distances, level of threat and subject's apparel should be considered.

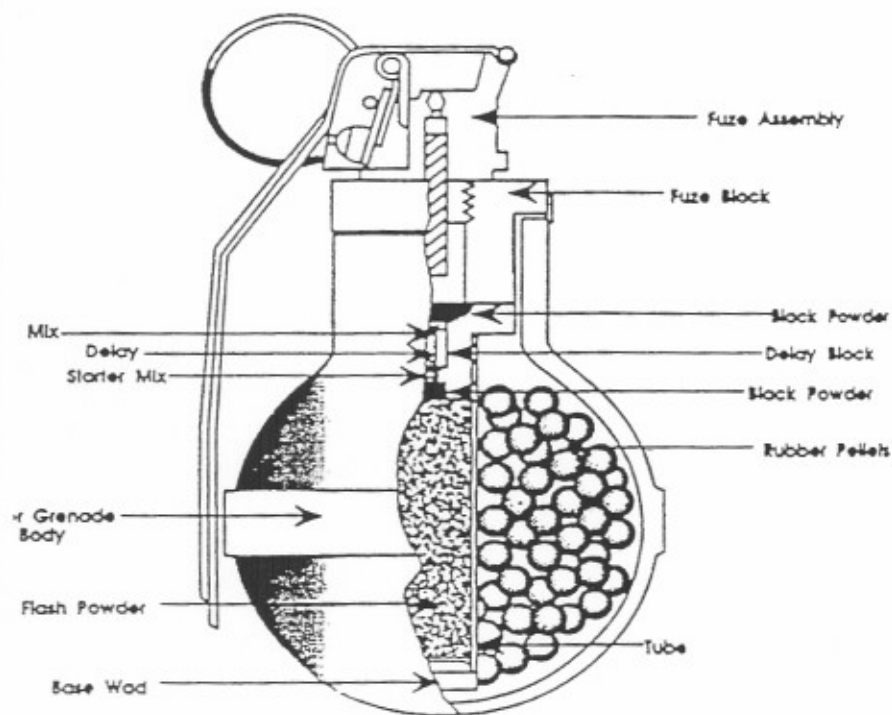
To be used only by law enforcement, corrections, or military personnel trained in specialty impact munitions. Use only in accordance with manufacturer's instructions and after receiving proper training.

See Specialty Impact Munitions Summary on C-15 and Kinetic and Impact Parameters on C-17.



Appendix 3

NO. 15 STINGER™ GRENADE



Appendix 4