Firearm Terminology

This is to help those that make firearms with some terminology. It can be updated as much as possible.

Firearm Types

- Assault Rifle: Selective fire rifle or carbine firing ammunition with muzzle energies intermediate between those typical of pistol and battle rifle ammunition. An example would be the M16 or AK-47.
- Battle Rifle: Fires a full-sized (as opposed to intermediate sized) round, from a full-length barrel. Battle rifles can be bolt-action, semi-automatic, burst fire or full-automatic. An example would be the G3, FN FAL, or M14.
- Carbine: A carbine is a firearm similar to, but generally shorter and less powerful than, a rifle of a given era. An example would be the M4 or AKS-74u.
- Submachine Gun: A firearm that combines the automatic fire of an assault-rifle-size weapon with the cartridge of a pistol, and is between the two in weight and size. An example would be the MP5, Tommy Gun, or the Steyr TMP.
- Light Machine Gun: Generally lighter than other machine guns, usually designed to be carried by an individual soldier, are chambered for smaller calibers than medium machine guns, and are mostly considerably more compact. An example would be the M249 SAW or MG36.
- Medium Machine Gun: Belt-fed, full-power rifle-caliber automatic weapon with some provision for more extended firing than lighter automatic firearms; are light enough to be used by infantry with a bipod. An example would be the M240, or PKM.
- Heavy Machine Gun: Larger-caliber, high-power machine meant for prolonged firing from heavy mounts, less mobile, or static positions. Best example is the Browning M2.
- Designated Marksman’s Rifle: A highly-accurate semi-automatic rifle equipped with a telescopic sight. Derived from a U.S. military unit intended to be a squad-based sniper. Best examples are the M21 or Dragunov.
- Sniper Rifle: Term is often used in the media to describe any type of accurate firearm fitted with a telescopic sight that is employed against human targets. In actuality, it is a highly specialized rifle, of semi-automatic or bolt-action type, that fires rifle cartridges with much greater accuracy than a standard rifle. Best examples are the M40A3, M24 or Accuracy International L96.
- Handgun: A handgun is a firearm designed to be held in one hand when used. This characteristic differentiates handguns as a general class of firearms from their larger cousins: long guns such as rifles and shotguns, mounted weapons such as machine guns and autocannons, and larger weapons such as artillery. Best example is the 1911A1 or Colt Python Revolver.
- Shotguns: A shotgun is a firearm typically used to fire a number of small spherical pellets called shot. The common characteristics that make a shotgun unique center around the requirements of

firing shot. These features are the features typical of a shotgun shell, namely a relatively short, wide cartridge with straight walls and operating at a relatively low pressure. Most shotguns are “smoothbore,” meaning the barrels have no rifling. An example would be the Remington 870, Saiga 12k, or HK CAWS.

- Combination Gun: A combination gun is a shoulder-held sporting firearm that comprises at least two barrels, a rifle barrel and a shotgun barrel, often but not always in an over and under configuration.
- Personal Defense Weapon: A personal defense weapon (often abbreviated PDW) is a compact firearm with increased range and better armor penetrating capabilities than a pistol, machine pistol, or submachine gun, while being smaller than a full-sized assault rifle or carbine. PDWs otherwise share many of the characteristics of submachine guns and are often classified as such, though they utilize armor-piercing ammunition which makes them more effective. Notable examples include: the FN-P90 or HK MP7.
- Bullpup Firearms: Bullpup is a firearm configuration in which the action (or mechanism) and magazine are located behind the trigger. This increases the barrel length relative to the overall weapon length, permitting shorter weapons for the same barrel length, saving weight and increasing maneuverability. It alternatively allows for longer barrels on weapons of the same length, improving trajectory and effective range. Disadvantages are that in some models, casings are ejected from one side, making the weapon need to be fired from one side of the body, reducing it's effectiveness as a universally ergonomical weapon. Other criticisms made of bullpup weapons are their heavy and sluggish trigger pull, caused by use of a flexible rod or similar system , awkward magazine changes, poor balance (a bullpup's weight is centered to the rear or directly above the trigger, instead of between the user's hands as in the traditional design), high sight position above the barrel (forcing the firer to expose more of his head when aiming over cover), reduced reach in bayonet fighting, and uncomfortable muzzle blast caused by the muzzle's proximity to the operator's head. Another issue is that because the magazine is behind the pistol grip, and in many cases not visible to the shooter, it is not uncommon for a soldier to forget to remove the magazine while unloading or performing trigger function tests resulting in negligent discharges. Examples include: The Steyr AUG, Israeli Tavor or QBZ-95.

Common Firing Actions

- Closed-bolt firing system: In a closed-bolt system, a round must first be chambered manually before the weapon can fire. When the trigger is pulled, only the hammer and firing pin move, striking the cartridge's primer and firing the bullet. The bolt then recoils far enough rearward to extract the empty shell and load a new cartridge from the magazine into the firearm's chamber, ready to fire again once the trigger is pulled. An M-16 works this way.
- Open-bolt Firing System: When ready to fire, the chamber is empty and the bolt is to the rear. When the trigger is pulled, the bolt is flung forward, stripping a cartridge from the top of the magazine. With the trigger still depressed, the bolt's firing pin strikes the fresh round and fires it. The bolt is then flung back from the recoiling energy of the round. This sends the bolt back to the rear, which extracts and ejects the empty cartridge case. Open-bolt firing systems are generally considered inferior to closed-bolt systems in terms of accuracy. An Ingram MAC-10 works this way.
- Long-recoil operated: In a long-recoil action, the barrel and bolt recoil all the way back as a unit.

Once its rearward movement is absorbed by its recoil spring, the barrel is forced forward by the spring, where it unlocks from the bolt and returns to battery. The bolt, after compressing its own recoil spring, is held in the rearmost position until the barrel returns to battery. At this point, the fired shell has been extracted and ejected, and a new shell has been lifted from the magazine. The bolt is released by the return of the barrel, and is forced closed by its recoil spring. Some shotguns work this way. (From Wikipedia)

- Short-recoil operated: Short recoil operation differs from long recoil operation in that the barrel and bolt recoil only a short distance before they unlock and separate. The barrel stops quickly, and the bolt continues rearwards, compressing the recoil spring and performing the other actions of cycling. During the last portion of its forward travel, the bolt locks into the barrel and pushes the barrel back into battery. Pistols almost universally work this way. (From Wikipedia)
- Inertia operation: As the recoil spring returns to its uncompressed state, it pushes the bolt body backward with sufficient force to cycle the action. The bolt body unlocks and retracts the bolt head, extracts and ejects the cartridge, cocks the hammer, and compresses the return spring. Once the bolt reaches the end of its travel, the return spring provides the force to chamber the next round from the magazine, and lock the bolt closed. In our world, only certain shotguns work this way. (From Wikipedia)
- Bolt action: Typically, the bolt consists of a tube of metal inside of which the firing mechanism is housed, and which has at the front or rear of the tube several metal knobs, or “lugs”, which serve to lock the bolt in place. The bolt is manually rotated and pulled back. When this happens, the round in an internal or box magazine is pushed up via tension in the spring in said magazine. When the bolt is pushed forward, it pushes the round into the chamber and locks once rotated into the proper position. All types of firearms have bolt-action varieties, but bolt actions are most common in rifles.
- Pump action: A pump-action firearm is typically fed from a tubular magazine underneath the barrel, which also serves as a guide to the movable fore-end. The rounds are fed in one by one through a port in the receiver, where they are pushed forward. A latch at the rear of the magazine holds the rounds in place in the magazine until they are needed. If it is desired to load the gun fully, a round may be loaded through the ejection port directly into the chamber, or cycled from the magazine, which is then topped off with another round. Many shotguns work this way, along with a few rifles.
- Break-Action: A break-action firearm is one whose barrels are hinged, and rotate perpendicular to the bore axis to expose the breech and allow loading and unloading of ammunition. A separate operation may be required for the cocking of a hammer to fire the new round.
- Gas-operated: In gas-operation, a portion of high-pressure gas from the cartridge being fired is used to power a mechanism to extract the spent case and chamber a new cartridge. Energy from the gas is harnessed through either a port in the barrel or trap at the muzzle. This high-pressure gas impinges on a surface such as a piston head to provide motion for unlocking of the action, extraction of the spent case, ejection, cocking of the hammer or striker, chambering of a fresh cartridge, and locking of the action. Several automatic weapons utilize this method of operation.
- Short-stroke gas system: A short-stroke gas system is defined as one that diverts high pressure gas from the middle or rear portion of the barrel that impinges on the piston head for a short period of time before excess gas is either cut-off, vented, or the piston head reaches a stop. The distance the piston travels under pressure is generally less than its diameter.The piston may or may not be

attached to the bolt carrier. This is the most common type of gas operation.

- Long-stroke gas system: A long-stroke gas system is generally defined as one where the stroke of the piston under pressure is greater than its diameter.Because of the greater dwell time, gas must be ported from the barrel very near the muzzle of the weapon. This relatively lower-pressure gas acts over a longer period of time to impart the same amount of energy to the operating system. Because the operating parts are longer, they are necessarily heavier and this system is not used in modern weapons.
- Gas trap: A gas-trap system is similar to long-stroke operation, however gas is 'trapped' after leaving the muzzle.
- Direct impingement: A type of gas-operation for a firearm that directs gas from a fired cartridge directly to the bolt carrier or slide assembly to cycle the action.
- Burst fire: The number of rounds fired in a burst is almost universally determined by a mechanism that trips the trigger mechanism for each shot in the burst. Some designs will terminate the burst if the trigger is released before the burst is complete, while others will reset the cam position of the mechanism, so the next burst will fire a full number of rounds.
- Automatic fire: An automatic firearm is a firearm that automatically extracts and ejects the fired cartridge case, and loads a new case, usually through the energy of the fired round. The term can be used to refer to semi-automatic firearms, which fire one shot per pull of the trigger, or fully automatic firearms, which will continue to load and fire ammunition as long as the trigger (or other activating device) is pressed or until the ammunition is exhausted.
- Falling Block Action: A falling-block action (also known as a sliding-block action) rifle is a single-shot firearm action in which a solid metal breechblock slides vertically in grooves cut into the breech of the rifle and actuated by a lever. When in the top position, it is locked and resists the force of recoil while sealing the chamber. In the lower position, it leaves the chamber open to be loaded by a cartridge from the rear. After loading, the lever returns the block to the top position to lock the breech in place to seal the chamber.
- Asymmetrical Recoil: The system compensates for recoil by utilizing moving parts that travel down. This means they travel vertically and forces encountered when they reach the end of their travel act downward, reducing muzzle rise.
- Electronic Firing: Electronic firing refers to the use of an electric current to fire a cartridge, instead of a percussion cap. In modern firearm designs, a firing pin and percussion cap are used to ignite the propellant in the cartridge and propels the bullet forward. Because the firing pin must travel a short distance, this creates a short delay between the user pulling the trigger and the weapon firing, which generally decreases accuracy. In an electronic-fired firearm however, an electric current is used instead to ignite the propellant, which fires the cartridge as soon as the trigger is pulled.

Terminology

- Clip: A device that is used to store multiple rounds of ammunition together as a unit, ready for insertion into the magazine of a repeating firearm. The term clip is commonly but erroneously used to describe a firearm magazine, generally a specific type of magazine known as a detachable box

magazine, or even a firearm belt. These uses of the term are incorrect; a clip is typically used to load a magazine, while a magazine or a belt is used to load cartridges into the chamber of a firearm.

- Magazine: A magazine (also called a mag or, commonly but incorrectly, especially when removable, a clip) is an ammunition storage and feeding device within or attached to a firearm. Magazines may be integral to the firearm (fixed) or removable (detachable).The cartridges in the magazine are loaded into the firearm either automatically or manually depending on the type of gun, but almost always by a spring. Some magazines can in turn be loaded by a clip. The brelt of linked ammunition used by most machine guns is an ammunition feeding device that is not a magazine, since it does not operate by feeding rounds out of a container.
- Bullet: A bullet is a solid projectile propelled by a firearm or air gun and is normally made from metal (usually lead). A bullet (in contrast to a shell) does not contain explosives, and damages the intended target solely by imparting kinetic energy upon impact. The word “bullet” is sometimes erroneously used to refer to the combination of bullet, case, gunpowder and primer more properly known as a cartridge or round.
- Case: Metallic case precisely made to fit the firing chamber of a firearm.
- Primer: A cartridge primer is a small copper or brass cup, containing a precise amount of stable but shock-sensitive explosive mixture, with ingredients such as lead azide or potassium perchlorate.
- Cartridge: Combination of the bullet, case, gunpowder and primer.
- Action: In firearms terminology, an action is the system of operation used to load rounds and/or seal the breech. The term is also used for the physical parts inside the weapon that carry out the system of operation. Actions are generally divided on the basis of what provides the energy for its cycle, and how they lock the breech.
- Bolt: A bolt is a mechanical part of a firearm that blocks the rear of the chamber while the powder burns.
- Receiver: In firearms terminology, the receiver is the part of a firearm that houses the operating parts. It is sometimes called the body of the firearm, and especially in the context of handguns (revolvers and pistols) it is often called the frame.
- Magnum: A generic term used to describe a pistol cartridge with an extended casing and more powder.
- Rimfire: A rimfire is a type of firearm cartridge. It is called a rimfire because, instead of the firing pin striking the primer cap at the center of the base of the cartridge to ignite it (as in a centerfire cartridge), the pin strikes the base's rim. The rimfire cartridge is essentially an extended and widened percussion cap which contains not only the priming compound, but also the propellant powder and the projectile (bullet).Rimfire cartridges, due to the thin case they must have, are limited to low pressure calibers. Although rimfire calibers up to .44 (11 mm) were once common, modern rimfires tend to be of caliber .22 (5.5 mm) or smaller.
- Centerfire: A centerfire cartridge is a cartridge in which the primer is located in the center of the cartridge case head. Unlike rimfire cartridges, the primer is a separate and replaceable component.
- Spitzer: A spitzer is an aerodynamic bullet design used in most intermediate and high-powered rifle

cartridges. The name derives from the German word Spitzgeschoss, literally pointed bullet. It is the shape of all bullets that we recognize today, versus the shape of older bullets with rounded heads.

Weapon Sights

- Open Sights: Open sights generally are used where the rear sight is at significant distance from the shooter's eye. They provide minimum occlusion of the shooter's view, but at the expense of precision. Open sights generally use either a square post or a bead on a post for a front sight. The post or bead is placed in the rear sight notch, and the target is placed above and centered on the aligned sights. From the shooter's point of view, there should be a noticeable space between each side of the front sight and the edges of the notch; the spaces are called light bars, and the brightness of the light bars provides the shooter feedback as to the alignment of the post in the notch. Vertical alignment is done by lining up the top of the front post with the top of the rear sight, or by placing the bead just above the bottom of the V or U-notch. If the post isn't centered in the V or U notch, the shot will not be accurate. If the post extends over the V or U-notch it will result in a high shot. If the post does not reach the top of the V or U-notch it will result in a low shot.
- Iron Sights: The term iron sights refers to the open, unmagnified system used to assist the aiming of a variety of devices, usually those intended to launch projectiles, such as firearms, airguns, and crossbows; they are also used on many telescopes to help point the telescope at a desired target. Iron sights usually consist of some form of notch or aperture in the rear sight and a post, bead or ring in the front sight. Often, the rear sight is adjustable for windage and/or elevation, though in many military rifles, the front sight is also adjustable.
- Aperture Sights: Generally used when the rear sight is a ring, and where the front sight is a post. The theory of operation behind the aperture sight is that the human eye will automatically center the front sight when looked through the rear aperture, thus ensuring accuracy. The more thicker the ring on the rear sight, the more precise. The thinner the ring on the rear sight, the faster the sight.
- Red Dot Sights: Red dot sights use refractive or reflective optical collimator to generate a collimated image of a luminous or reflective reticle. The lack of magnification is also an advantage in that both eyes can be left open, and the eye that sees the reticle image will automatically superimpose that image with the image from the other eye, giving the shooter normal depth perception and full field of view. This makes the red dot sight very fast and easy to use.
- Telescopic Sight: Uses the magic of SCIENCE to magnify an image. Disadvantages of this is that the area to either side of the target is obscured by the tube of the sight. The higher the magnification, the narrower the field of view in the sight, and the more area that is hidden. Untrained users tend to close the eye that is not looking through the sight, resulting in a “tunnel vision” effect, limiting your field of view. Experienced users keep both eyes open, with one eye looking through the sight and the other keeping a normal field of view.
- Laser Sight: The laser has in most military applications been used as a tool to enhance the targeting of other weapon systems. For example, a laser sight is a small, usually visible-light laser placed on a handgun or rifle aligned to emit a beam parallel to the barrel. Since a laser beam by definition has low divergence, the laser light appears as a small spot even at long distances; the user simply places the spot on the desired target and the barrel of the gun is aligned.

Magazine Types

- Tubular: Many of the first repeating rifles, particularly lever-action types, used a tubular magazine which stored cartridges end-to-end inside of a spring-loaded tube typically running parallel to the barrel, although some early repeating rifles had tube magazines in the buttstock. This type of magazine is usually fixed to the firearm, meaning that it cannot be removed easily. The tubular magazine was made OBSOLETE for most military purposes with the introduction of pointed “Spitzer” bullets, which risk igniting cartridges stored in the magazine as the pointed bullet impacts the primer of the centerfire cartridge ahead of it during recoil.
- Box: The most popular type of magazine in modern rifles and handguns, the box magazine stores cartridges in a parallel column, or stack, one above the other. This allows pointed bullets to be used, which are generally more accurate and perform better at longer ranges. As the firearm cycles, cartridges are moved to the top of the magazine, via spring tension, mounted beneath the cartridge stack. Box magazines may be built into the firearm or may be removable.
- Rotary: The rotary or spool magazine consists of a star-shaped rotor, or sprocket, actuated by a torsion spring. The magazine may be fixed or detachable. Cartridges fit between the teeth of the sprocket, which is mounted on a spindle parallel to the bore axis, with the torsion spring providing the pressure necessary to rotate the rounds into the feeding position. Rotary magazines are usually of low capacity, from five to ten rounds, depending on the cartridge used.
- Drum: Used in several light machine guns, submachine guns, and shotguns, a moving partition within a cylindrical chamber forces loose rounds into an exit slot, with the cartridges being stored parallel to the axis of rotation. After loading of the magazine, a wound spring or other mechanical force moves the partition against the rounds. The cylindrical design allows for larger capacity than boxes, without growing to excessive length, though the more complicated mechanism can lead to reliability problems.
- Pan: Often referred to as a drum magazine, the pan magazine differs from other drum magazines in that the cartridges are stored perpendicular to the axis of rotation, rather than parallel, and are usually mounted on top of the firearm.
- Helical: Helical magazines extend the drum magazine design so that rounds follow a spiral path, allowing for a very large ammunition capacity in a compact package.
- Belt: In general, the belt is either permanently linked, fed through the weapon, and subsequently pushed out the other side of the chamber, or the links themselves “disintegrate”, or break apart after firing, as the cartridges are integral to the design of the belt. The latter is called a “disintegrating belt”. The main advantage of the non-disintegrating belt is that it is much easier to refill. The advantages of the disintegrating belt are that it is lighter and the expended links do not dangle from the other side of the gun. Permanently linked belts are often made of cloth while disintegrating links are generally metal.
- Single-Stack Magazines: In a single column magazine, the rounds are stacked one on top of the other, in a single straight line. The slang term single stack magazine is also sometimes used. Though it doesn't allow for much in terms of capacity, it allows for a handgun to be designed slimmer than those with a double-stack magazine.
- Double-Stack Magazines: A double column magazine (also referred to as double stack magazine) is

a magazine in which cartridges are stored in two side-by-side stacks, offset by half a cartridge height and resting against one another.

Types of Solid Ammunition

- Full Metal Jacket: A full metal jacket (or FMJ) is a bullet encased in a copper alloy such as gilding metal, cupronickel, or a steel alloy shell. This shell can extend around all of the bullet or often just the front and sides with the rear left as exposed lead. The jacket allows for higher muzzle velocities than bare lead without depositing significant amounts of metal in the bore. It also prevents damage to bores from steel or armor piercing core materials.
- Teflon-coated bullets: Handgun bullets that have been covered with a coating of Teflon to reduce barrel wear.
- Hollow point Bullets: A hollow point, also called a hollow tip, is a bullet that has a pit, or hollowed out shape, in its tip, generally intended to cause the bullet to expand upon entering a target in order to decrease penetration and disrupt more tissue as it travels through the target. As a side effect, hollow-point bullets can offer improved accuracy by shifting the center of gravity of the bullet rearwards.
- Lead Shot: Lead shot is a collective term for small balls of lead. It is used primarily as projectiles in shotguns, but is also used for a variety of other purposes.
- Tracer Ammunition: Tracer ammunition (tracers) use special bullets that are modified to accept a small pyrotechnic charge in their base. Ignited upon firing, the composition burns very brightly making the projectile visible to the naked eye. This enables the shooter to follow the bullet trajectory relative to the target in order to make corrections to his aim.
- AP Rounds: Armor-piercing ammunition is used to penetrate hardened armored targets such as body armor, vehicle armor, concrete, tanks and other defenses, depending on the caliber of the firearms. Armor-piercing ammunition consists of a hardened steel, tungsten-carbide, or depleted uranium penetration enclosed within a softer material, such as copper or aluminum. Armor-piercing ammunition can range from rifle and pistol caliber rounds all the way up to tank rounds.
- Caseless Ammunition: Caseless ammunition is firearm ammunition that aims to eliminate the metal case that typically holds the primer, or igniter, and the explosive charge (“gunpowder”) that propels the bullet. In typical caseless ammunition designs, the powder, primer, and bullet are held together with a binding agent. Other possible caseless systems might involve loading only projectiles and using a chemical or other explosive agent ignited electrically rather than mechanically.
- Gyrojet: Small, fin-stabilized rockets rather than inert bullets, they have little recoil and don't require a heavy barrel to resist the pressure of the combustion gases.
- Slug: A slug is a term used for a solid ballistic projectile. It is “solid” in the sense of being composed of one piece; the shape can vary widely, including partially hollowed shapes. The term is occasionally applied to bullets (just the projectile, never the cartridge as a whole), but is most commonly applied to shotgun projectiles, to differentiate from shotshells.
- Soft-Point Bullet: A soft-point bullet, also known as a soft-nosed bullet, is a lead bullet with a copper

or brass jacket that is left open at the tip, exposing some of the lead inside and is thus an example of a semi-jacketed round.

- Ballistic Tip Bullet: Ballistic tip ammunition is a form of plastic tipped bullet, meant to confer the advantages of both full metal jacket & hollow point variant ammunition. They consist of a fairly normal hollow-point bullet, with the frontal cavity filled in by hard plastic, which is molded into a streamlined shape mimicking the shape of a full metal jacket bullet. Upon impact, the plastic fragments into small pieces and the bullet performs like a regular hollow-point, expanding ("mushrooming") to a larger diameter or fragmenting.
- Flechette: The French word flechette means "little arrow" or dart projectile of steel that is sharp and pointed with a vaned tail for stable flight.
- Boat-Tail Rounds: A streamlined base for spitzer bullets. A vacuum is created when air strata moving at high speed passes over the end of a bullet. The streamlined boat tail design aims to eliminate this drag-inducing vacuum by allowing the air to flow alongside the surface of the tapering end, thus eliminating the need for air to turn around the 90-degree angle normally formed by the end of shaped bullets. The resulting aerodynamic advantage is currently seen as the optimum shape for rifle technology.

Less Than Lethal

- The vortex ring gun is currently (as of early 2006) being developed. It fires a blank cartridge into a barrel which widens towards its muzzle. The pressure accelerates the air or gas in the barrel at high speed and it becomes a high-speed traveling vortex ring.
- Rubber Bullet: Rubber bullets are rubber or rubber-coated projectiles fired from guns. They are usually non-lethal, unless fired at short range, but are often heavy enough to pierce skin. Rubber, plastic, wax, and wooden bullets are often used in riot control and to disperse protests. Rubber bullets may also be used for short range target practice.
- Bean-bag Round: A flexible baton round is the trademarked name for a "bean bag round". The flexible baton round consists of a small fabric "pillow" filled with #9 lead shot weighing about an ounce and a half. It is fired from a normal 12 gauge shotgun. When fired, the bag is expelled at around 70-90 meters/second; it spreads out in flight and distributes its impact over about 6 centimeters^2 of the target. It is designed to deliver a blow that will cause minimum long-term trauma and no penetration but will result in a muscle spasm or other reaction to briefly render a violent suspect immobile. The shotgun round is inaccurate over about 6 meters, has a maximum range of around 20 meters, and is unsafe to use from less than 3 meters.
- Wax Bullets: Wax bullets are made of paraffin wax, and are pressed into a primed cartridge case. Gun powder is not used; the primer provides all the power.
- Pepper-Spray Projectile: A pepper-spray projectile, also called a pepper-spray ball or pepper-spray pellet, is a projectile weapon made up of a powdered chemical that irritates eyes and nose (see pepper spray). These non-lethal weapons launch a frangible ball which breaks upon impact and releases an extremely effective super irritant, a powder called PAVA (capsaicin II) pepper.
- Impact Rounds: Impact rounds come in a variety of shapes, sizes and compositions for varying roles. Impact rounds are made out of materials of much lower density than the lead normally used

in bullets, and are fired at lower velocities. Some say that the low mass, moderate velocity, and large surface area prevent the rounds from penetrating the skin significantly, so they merely provide a painful blow to the target.

- Baton Rounds: These are cylinders made of rubber, plastic, wood, or foam, and are the full bore diameter of the riot gun. Baton rounds may fire one long baton, or several shorter batons. Harder or denser baton rounds are intended for skip fire, while softer or less dense batons are intended for direct fire.
- Rubber Buckshot: These, also called stinger rounds, consist of a number of rubber balls ranging from around .32 inch (8 mm) to .60 inch (15 mm) in diameter, and are used for direct fire. The small diameter means that each ball contains far less energy than a baton round, but it also limits the range. Rubber slugs, used in 12 gauge firearms, consist of a fin stabilized full bore diameter rubber projectile. These are used for long range, accurate direct fire shots on individual targets.

Weapon Modifications

- Floating Barrel: A Free-floating barrel is a specific design technology used in highly accurate rifles, particularly match grade rifles, to increase the accuracy of the weapon. With normal rifles, the barrel rests in contact with stock. In particular if the stock is manufactured of wood, environmental conditions or operational use may shift alignment of the stock, which may cause the barrel to shift its alignment slightly over time as well, altering the projectile flightpath and impact point.A free-floating barrel is one in which the barrel and stock are designed to not touch at any point along the barrel's length. The barrel is attached to its receiver, which is attached to the stock, but the barrel “floats freely” without any contact with other gun parts, other than the rifle's sights. This minimizes the possible mechanical pressure distortions of the barrel alignment.
- Barrel Shroud: A barrel shroud is a ventilated safety covering attached to the barrel of a firearm, that partially or completely encircles the barrel, that allows the bearer to hold the barrel of the firearm with his or her non-trigger hand while firing without being burned.
- Flash Suppressor: A Flash suppressor, also known as a flash hider, flash guard, flash eliminator, or flash cone, is a device attached to a rifle or other gun that directs hot escaping gases from the barrel end. It reduces the visibility of the blazing muzzle flash which occurs upon firing to the shooter and or other individuals.
- Telescoping Stock: A telescoping stock (alternatively collapsing stock) is a stock on a firearm that telescopes or folds in on itself in order to become more compact. Telescoping stocks are useful for storing a rifle or weapon in a space that it would not normally fit in. The user can either fold in the stock to make the weapon easier to handle, or extend it for better accuracy.
- Ported Barrel: In firearms, the term ported relates to holes that are precision-drilled into the forward part of the barrel (and slide on pistols). These holes are designed to divert a portion of the gases expelled during firing in the direction that reduces the tendency of the firearm to flip upwards. The concept applies Newton's third law: the exhaust directed upward causes a reciprocal force downward.
- Rail System: Rail systems are small pieces of metal put on any given surface on a gun to allow attachment of some sort of accessory. On them you can attach everything from laser sights to

scopes and R.I.S systems. They make the mounting and dismounting of these artifacts significantly easier.

- Suppressor: A suppressor or sound moderator is a device attached to a firearm to reduce the amount of noise and flash generated by firing the weapon. It generally takes the form of a cylindrically-shaped metal tube that is fit onto the barrel of the firearm, with various internal mechanisms to reduce the sound of firing by slowing the escaping propellant gas, and sometimes by reducing the velocity of the bullet.
- Muzzle Brake: Muzzle brakes and recoil compensators are devices that are fitted to the muzzle of a firearm or cannon to redirect propellant gases with the effect of countering both recoil of the gun and unwanted rising of the barrel during rapid fire.

Cartridge Naming

- Metric: Depending on where you live, you see cartridges measured in millimeters, such as 7.62×39 found in the AK-47. What does this mean: (#)mm x (#)mm? Frequently, the first number in that is the diameter (caliber) of the cartridge. The second number is the measurements of the length of the cartridge case, all in millimeters. For example, the 7.62×39 round featured earlier has a diameter of 7.62mm and a overall case length of 39mm.
- Non-Metric: Simply measure the bullet's diameter in inches. In an example of a .22 caliber cartridge, you replace the “inch” in its diameter measurement of .22 Inches with “caliber”, making it .22 caliber. There are also ways to differentiate between two bullets of the same caliber, but different. An example would be .22 short vs .22 long in describing the case size. .44 special vs .44 magnum to differentiate between power. The .45 ACP, or .45 Automatic Colt Pistol, described the developer and intended use. The .30-03 and .30-06 were named for the date of introduction, 1903 and 1906 respectively.
- Gauge: This is mostly used in shotguns, with “gauge” referring to the number of lead spheres needed to fit into the diameter of the bore in order to equal a pound. In the case of a 12-gauge shotgun, it would take twelve spheres the size of the shotgun's bore to equal a pound. Counter intuitively, a numerically larger gauge indicates a smaller barrel: a 20-gauge shotgun requires more spheres to equal a pound, therefore its barrel is smaller than the 12 gauge.