

A New Dimension to Gunfire

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Preface

The classical mechanics associated with weaponry tend to gravitate around a few points. Among heavier systems damage and range are examined with loving detail, and even among lighter systems these factors remain significant. Damage in particular receives focus, with a constant classification of various types. We all recognize the numerous synonyms for that which crushes, that which cuts with a force applied laterally to the line of the edge, and that which cuts with a force applied parallel to the tangent line of a point. Once technology is raised a bit, ballistics frequently earn a category, a bit further and classifications for energy weapons appear. All this is well and good, but by the time the system is applied to far future settings, something is missing.

Space Opera needs something more. Something beyond the rote application of damage and range, and ideally for the purposes of this project something with relatively minimal crunch. Given the focus upon guns and gunfire within space opera, that leaves a very natural distinction. Weapons now have two primary qualitative stats, Delivery and Damage.

Concerning Offensive Capability

Delivery

Delivery is the method in which a weapon gets to its target. Barring all but the very simplest projectile weapons and lasers, delivery systems have little impact upon the effect of the weapon once it actually makes contact. While the specifics will vary based upon the setting emulated, there are certain common –if not all encompassing- trends. Three wide categories are proposed, with a fourth optional. These delivery systems:

Stream: A stream encompasses any system where a continual flow is involved. Everything from a flamethrower to a continuous laser fits into this category, with notable examples including the ray gun of Flash Gordon, the phazon beam of Metroid, the phaser of Star Trek, and of course most real world systems involving napalm.

Pulse: A pulse is any system in which payload is delivered through a single, coherent “object” that is not a solid or liquid. Pulse systems may or may not involve mass, if they do only a small amount is involved. Again there are many notable examples, including the Star Wars blaster, the few The Damned energy weapons, and the [ANOTHER EXAMPLE]

Physical: A physical delivery system is one that employs some kind of coherent object that actually deserves the term. This could encompass even sling stones and arrows, outrageous fortune or no, but is typically associated with various missiles, torpedoes, explosive bullets, grenades, and other advanced weaponry, to the point of sabot rounds having their own classification.

Swung: Swung is the optional delivery system, usually rolled into physical. In this case, it is used to describe objects that are hand held, but presumably inflict injury through some method other than forcible collision. Various incarnations of the energy sword best embody this, though it could include something as simple as a nail gun on a stick.

Damage

Damage is similarly divided into several extremely large categories. These are less than fully scientific, and specific to space opera, though the concept should be easy to transfer. The general damage category refers only to ordinance that has innate harmful qualities, the aforementioned sabot and laser appear in the exceptions category. This leaves:

Thermal: Thermal damage is that which either heats or cools the target. Flamethrowers are the extremely obvious case, but plasma is also common, and liquid nitrogen at least a perennial favorite.

Kinetic: Kinetic damage is anything involving force coming from the collision of physical objects, with injury coming from this. In most cases, that means explosives of varying sizes, from the tiny explosive bullets in much hard science fiction to fragmentation grenades so large they require siege weaponry.

Energy: Energy is a catch all for most everything else. Electricity, gravitational pulses, mass-energy conversion, disintegration, and just about everything else falls into these categories.

Special Effects

There are a few notable effects in addition to the damage and delivery system. These are detailed here.

Sabot Round: A Sabot Round is a physical/kinetic object that relies entirely upon its status as a projectile to inflict damage. As such, it simply has a level of Sabot Round noted instead of physical and kinetic statistics. The shield acts to directly reduce its level, using the numerical equivalent plus two and simple subtraction. Then the remaining level is compared to armor values. For example, a Great Sabot that goes through a Mediocre Shield is treated as if it were a Good Kinetic weapon when put against armor.

Wave: A Wave is the Stream/Energy version of the Sabot Round, typically used to denote photon based weaponry, as well as the occasional sonic weapon.

Explosive: Explosive weapons are just like normal ones, it is simply a descriptor that indicates that an area is targeted instead of an individual.

Breaching: Breaching weapons are intended to be used against area effects, such as force fields. Breaching gets a rating, and can completely ignore any area effect with a lower rating.

Implementation

Every weapon has both a delivery system and damage system as addressed above. In addition, both receive a quality rating, while multiple methods are available the Fudge Ladder is used in this version. Other classification systems worth consideration are a simple low-medium-high or light-medium-heavy system, a highly quantified system, or even a color

system. There is even an option of having no qualification system at all, though that does create problems regarding defenses.

With the possible exception of delivery and damage type, none of these stats need be completely static. Creative action on the part of the characters should be given an increase when plausible. For instance, the delivery rating of a thrown grenade should increase when it is thrown from the front of a speeding vehicle at a stationary target, as it is moving much faster proportional to that target than it normally would be.

Concerning Defenses

The delivery and damage system has several implications involved for defenses. While this does lead to a more setting specific section, it is still broad enough to be widely used. In this case, the defenses focus upon the division of delivery and damage, thus forming two layers. In addition to this, there are various areas which have an effect as well.

Shields: Shields form the first layer. What exactly these comprise depends on the setting, in this case a few basic traits are assumed. Shields only cover a single entity, whether that be human, tank, or star ship. Shields cover the entire entity, with uniform coverage assumed for simplicity. However, what makes shields distinctive is that they resist ordinance delivery, not damage. Each of the three delivery systems has a rating on the Fudge ladder stating a level of resistance, it is suggested that all three have the same rating in most cases. Specific handling can vary, complete immunity to weapons under the rating is one option, opposed rolls for shield penetration another. Yet another would be to base the needed quality of the shot on the difference between shield and weapon, added to poor. The author recommends complete immunity, with the shields level treated as one lower than default per shot beyond the first that strikes it in one combat round.

Armor: Armor, or Plating, or Hull resists damage. If something gets through the shield, armor is then looked at. Armor has statistics regarding the three (or four) types of damage, as with shields it is recommended that all of them be the same in most cases. Armor should probably be treated as if it were similar to a shield, however there are other options. Those preferring a crunchier system may wish to track damage done to the armor itself, and a damage roll is very reasonable, as armor is not going to be nearly as consistent as a shield.

Area Affects: In addition to Shields and Armor for individual entities, there are various area effects. The most obvious of these is the simple force field that acts as a barrier, however there are a great many more options.

Appendix A: Sample Weapons

A1: Weaponry

Tidal Burst

Fair Pulse

Good Kinetic

The Tidal Burst is a weapon employed by small fighter craft in space combat. The pulse spreads on impact,

Plasma Grenade (Thrown)

Poor Physical

Good Thermal, Explosive

This small grenade has a single purpose. Unshielded targets are to be covered in plasma, ideally burnt to death. It is typically deployed as a surprise weapon among black ops teams targeting enemy forces before they activate shields.

Mass-Energy Converter

Good Stream

Legendary Energy

The Mass Energy Converter is one of the top weapons produced by military station Atlantis 2.0. It fires a beam of energy that converts to antimatter upon contact with a target. The releasing burst of energy from the antimatter matter reaction is then converted to antimatter with a small amount siphoned off to recharge the initial shot. This repeats until the target gets away, the armor contains it, or most likely the target has been converted entirely into ammunition.

Phased Pistol*

Fair Pulse

Fair Energy

(NOTE: Weapon is modifiable)

The phased pistol is a standard weapon issued to military and police forces. It is also one of the most common guns found on markets for civilian purchase. Like the weapons of centuries before, the pulse pistol has a simple point and shoot mentality for medium to close range targets.

Equipped with a energy cartridge, the Pulse pistol can carry up to either five charges if set to heavy rounds or up to 20 charge for standard use. Many military have purchased modules for the weapon to make it more versatile for the job it is needed for.

T.A.G. Cannon (Target and Acquisition Grenade)*

Great Physical

Great Kinetic, Explosive

The T.A.G. Cannon is a military issued weapon used for clearing out rooms and/or hitting large fast moving objects. The T.A.G. cannon primary purpose is to fire a tracking charge that adhere's itself to the target and then the following grenade is able to not only track the target, but change it's trajectory to the target.

T.A.G. Cannons are expensive equipment though and with a unique ammunition only heavy troops or special forces are usually issued these weapons.

Sonic Rifle*

Great/Fair Wave

The Sonic Rifle is a non-violent weapon used by Law enforcement in place of usually lethal weaponry. The Sonic Rifle's unique direction beam emitter allows a concentration of sound waves to overload the human senses and stunning it's target.

Another Great feature to this weapon is it's still effectiveness against armored foes though shielding is known to mess with the effects.

A target taken down by a sonic rifle would suffer no permanent injuries hence it popular use in crowd control.

The weapon has two directional settings. Tight and wide beam. The weapon's effectiveness is lessened when on wide beam though it can effect more then one target.

(GM Note: Treat like a normal weapon except instead of killing it incapacitates with no wounds.)

Phased Rifle*

Good Pulse

Good Energy

Note:

(Weapon is modifiable)

The Phased rifle is the cousin to the Phase Pistol utilizing the same concept except in the form of a two handed rifle. This in turn allows the weapon to be more useful and versatile for the common soldier.

The Phased rifle sports a full energy clip with twenty heavy charges or forty standard charges. It's other unique feature that has made it popular is the module section that can be plugged in to the energy magazine chamber. Modulators allow the weapon to be customized towards the style of damage against a target.

(See Phased Variance Modulator & Crash Modulator)

A2: Modifications

Name

Effects

Description

Phased Variance Modulator*

+1 Energy

-1 Kinetic

The Phased Variance Modulator is a military add-on used to enhance damage against shielded targets while sacrificing physical damage. The P.V.M. is used a lot of times by hostage rescue teams to be able to take out targets fast while lowering the risk to the hostage's lives.

(NOTE: This item can only be used on a weapon marked Modifiable)

Crash Modulator*

+2 Kinetic

-2 Energy

The Crash Modulator gets its name from the crunching sound the compressed particles make striking a target. Taking the energy from the cartridge is super compressed them in to a kinetic ball which in turn inflicts more damage against an armored target. The side effect though is its uncanny way shields hamper the round.

Used by military and police for quick take down power against unshielded foes.

(NOTE: This item can only be used on a weapon marked Modifiable)

Tactical Scope

+1 Aiming Action

The Tactical Scope is a add-on to a modifiable rifle that assists the user with a better targeting against long range objects. The Scope is a system of amplifying mirrors and light enhancing filters to assist the shooter in all forms of light and weather. This is issued to most military and police snipers.

(NOTE: Can only be affixed to Rifles)

Enhanced Tactical Scope*

+2 Aiming Action

The Enhanced Tactical scope is an expensive alternative to the standard Tactical Scope. The reason being is that it has the same features of amplifying mirrors and light enhancers, but also a AI system that adjusts the scope intelligently in windy days. Its more powerful zoom allows it to target even farther reaching targets.

This modification is only available to Military special forces.

(NOTE: Can only be affixed to Rifles)

Silencer*

+2 Stealth

-2 Accuracy

The primary purpose of the silencer is to suppress the energy bolt's color, and sound from the area around the shooter. This item is used by covert teams who want to keep the profile low. This item is made for rifles and pistols.

***All asterisked items designed by Jonathan Snyder.**

Appendix B: Shields and Armor

B1: Shields

Standard Shielding

Variable Stream, Charge, and Physical

Standard Shielding is an energy intensive process, typically active only when expecting combat. However, the constant shield provides protection without any real drawbacks, other than power consumption that is not at all significant in a short skirmish. Its when the shield is off trouble arises.

Flicker Shield

Variable Stream, Charge, and Physical. -1 to shooting and throwing when it flicker

Flicker Shields are a different development, operating in two levels. They are always on, consuming minimal power, flickering up to defend against particular attacks. However, flicker shields have several major disadvantages, among which is a slight jerkiness to the wielder when it activates. Nonetheless, forces expecting ambush can do well with these.

B2: Armor

Guard's Suit

Mediocre Thermal, Mediocre Kinetic, Mediocre Energy

The Guard's Suit is one of the staple armors employed almost everywhere. It consists of a flexible mesh containing a variety of modern composite materials, all slightly charged to disperse heat and energy. Over the mesh and connected to it electrically are several plates, including a heat sink on the helmet affectionately nicknamed a frill.

Light Powered Armor

Fair Thermal, Fair Kinetic, Fair Energy

-1 Athletics, -1 Acrobatics, +1 Strength

Beyond the mere Guard's Suit is actual powered armor. There are a great many different chassis, all modular, however all of them entirely enclose the occupant. Light powered armor is distinct in still allowing motion for most wearers even without being powered up.

Heavy Powered Armor

Good Thermal, Good Kinetic, Good Energy

-2 Athletics, -2 Acrobatics, +2 Strength

Heavy Powered Armor is somewhere between armor and a vehicle. All but the strongest are immobilized when wearing it unpowered, and inferior versions aren't always capable of supporting their own weight without power.

Mechanized Skin

Great Thermal, Great Kinetic, Great Energy

Driving Rolls are substituted for Athletics and Acrobatics, at a -3 Penalty. +3 Strength

The Mechanized Skin is a full blown vehicle. Special training is needed to operate it, and it is completely impervious to much in the way of small arms fire.

B3: Modifications

Jetpack

-1 Thermal Rating, -1 Physical Rating, +8 to Athletics when jumping.

This is a pack, which has attached jets. Exact specifications vary, usually something akin to a wing design is employed. Due to both shielding use and potential for burning it reduces defenses, nonetheless it is a popular modification among civilians.

Swirling Shield

+1 Pulse Rating

Swirling Shields are slight modifications to shield that apply a spin to areas struck. Common among Atlantis 2.0 forces, the swirl provides a slight improvement against pulse weaponry.

Unstable Phase Buffer

+1 Thermal Rating

A liquid layer is added to armor, as well as a gaseous one. Both are very near the temperature of phase change, as such a change in heat is transferred to a change in phase instead of a change in temperature up to a certain point.

Magnetic Layering

+1 Kinetic Rating

Armor is slightly modified by the introduction of multitudes of atom thin plates contained within a magnetic field. They all repel each other, thus adding magnetic resistance to any physical force.

Lightscreen

+1 Energy Rating, +1 Dodge

Shots striking armor are used as energy to fuel a flash of light, this both disperses some energy and provides an instant in which to reposition.

Appendix C: Area Effects

Force Field

Variable Field Strength, resists all permeability.

The humble force field is an extremely useful device, and widely implemented. It simply offers a full stop to anything going through, much like a physical object, unlike a physical object it can reform when broken. Nonetheless, sufficiently powerful delivery systems can completely thwart force fields.

Accelerant Field

Variable Field Strength, +x to Physical Delivery in 1 direction, -x to Physical Delivery in the opposite.

Accelerant Fields are a very common force multiplier and defensive implement. They vary in strength, almost all are capable of making sure that grenades travel in only one direction, some can deflect missiles. Due to the charged field, it also accelerates projectiles traveling through the other direction, turning even primitive sabot rounds lethal.

Dispersion Field

Variable Field Strength, -x Stream Delivery, -x Charge Delivery

Dispersion Fields act by scattering charges and streams, making it easier for shield systems to defeat them. They are typically placed over a wide area, as it is a secondary effect that makes them the most useful, communications are incredibly impeded in dispersion fields.

Regenerative Mesh

Variable Field Strength, -x Physical Delivery

The Regenerative Mesh is a very low-tech solution to enemy fire. It is typically used only by those who lack the technological sophistication or funding for accelerant fields, and even then is more of a grenade catcher for tightly packed for than anything else.

Gravitic Lens

Variable Field Strength, +x Stream Delivery one way, -x Stream delivery opposite way.

The Gravitic Lens is quite possibly the most technologically advanced area affect likely to be employed in any conflict. Gravity is manipulated to focus streams from a large are into a smaller one, while the reverse is true in the other direction, much like a lens.

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