EABA

3G³ CONVERSION NOTES - All weapons in **EABA** were designed with **3G³**. The necessary guidelines for converting weapons into **EABA** follow.

Tech Levels - The standard **BTRC** tech level scale is used in **EABA**, but is more generalized. While each **EABA** Tech Era could be three TL's, the most accurate conversion is slightly different.

TL	Tech Era	Approximate date
1-2	Early Primitive	10,000BCE
3	Primitive	3,000BCE
4	Late Primitive/Early Basic	0CE
5	Basic	1400CE
6	Late Basic/Early Industrial	1700CE
7	Industrial	1800CE
8	Late Industrial	1900CE
9-10	Early Atomic	1930CE
11	Atomic	1980CE
12	Late Atomic	2000CE
13	Early Post-Atomic	2100CE
14	Post Atomic	2200CE
15	Late Post-Atomic	2300CE
16	Early Advanced	unknown
17	Advanced	unknown
18	Late Advanced	unknown
19	Early Interstellar	unknown
20	Interstellar	unknown
21	Late Interstellar	unknown

If a TL bridges the end of one Era and the beginning of the next, this is really only a cultural concern for that campaign and does not affect the design process.

Damage Value - A **3G³** DV of 12 is an **EABA** damage of 1d+0. Each time the **3G³** DV is multiplied by x1.5 (round up), **EABA** damage goes up by +1d. A DV of half the way between two full dice amounts is a +1, and two-thirds the way is +2, round up.

EXAMPLE: A DV of 12 is an **EABA** damage of 1d+0, and a DV of 18 is an **EABA** damage of 2d+0. This means that a DV of 15 (half the way between 12 and 18) is an **EABA** damage of 1d+1.

Melee weapons take their **3G³** DV, add 3, convert to **EABA** damage, then subtract 1d. The result is how the weapon adjusts their punch damage, with a minimum of -1 (1 point less than normal punch damage). If for some reason a weapon was attached to a foot, it would modify kick damage. Weapons that are simply "punch enhancements" (like brass knuckles) don't subtract 1d to figure their **EABA** damage.

EXAMPLE: A longsword has a **3G³** DV of 14, which goes to 17, for 1d+2 **EABA** damage. Subtract 1d and you're left with 0d+2, so a longsword does Punch damage+2 in lethal damage.

Any damage bonus of +3 is replaced with an extra die. No die roll ever has more than a +2 added to it.

EXAMPLE: A person with a punch damage of 1d+2 and using a +2 damage melee weapon would roll 2d+1, not 1d+4.

DV	EABA	Example	Armor
0	0d+0		
4	0d+1		gambeson
8	0d+2		hardened leather
12	1d+0	.32 ACP	flak jack., chain mail
14	1d+1		chain + gambeson
16	1d+2	.22 long rifle	
18	2d+0	.45 ACP	plate
21	2d+1	9mm	Level II bulletproof
24	2d+2	.357 magnum	
27	3d+0	.44 magnum	Level II+ bulletproof
32	3d+1		
37	3d+2	.30 carbine	
41	4d+0		Level III bulletproof
48	4d+1	5.56mm	
55	4d+2	7.62mm	Level IV bulletproof
61	5d+0		
72	5d+1		
82	5d+2	.460 magnum	
92	6d+0		
107	6d+1	12.7mm	
122	6d+2	14.5mm	
137	7d+0		
160	7d+1	20mm cannon	
183	7d+2		
206	8d+0	30mm cannon	
308	9d+0		
462	10d+0	60mm cannon	
692	11d+0	75mm cannon	
1038	12d+0	light anti-tank rocket	
1557	13d+0	90mm cannon	
2336	14d+0	120mm cannon	
3504	15d+0		
5256	16d+0	heavy anti-tank rocket	

The weapon damages above are all for Atomic Era weapons. The archaic armors are not proof against modern weapons and most would lose 1d of protection against them. For instance, 2d+0 plate would only be 1d+0 vs. a 9mm bullet.

Accuracy - Subtract 2 from the Aiming RC and 1 from the IA. The sum of the remainders is the Accuracy of the weapon (but not less than zero). Accuracy of a handheld weapon is never more than 4 unless it has some form of advanced sighting aid. Weapons that have different aiming RC's because of things like folding stocks will also have different Accuracy for the different configurations.

EXAMPLE: A pistol with an aiming RC of 2 and +2 IA has an **EABA** Accuracy of 1. A hunting rifle with an aiming RC of 4 and +3 IA has an **EABA** Accuracy of 5, but since this is a handheld weapon, it drops to 4.

Accuracy does not apply to melee weapons in most cases. At gamemaster option, a melee weapon with an IA of 2 will give the user a +1 bonus on their skill roll, and those with an IA of less than zero will give a penalty of -1.

EXAMPLE: A person with a skill of 4d+2 swinging an unwieldy chair as a melee weapon would roll 4d+1 instead.

Damage vs. range - As an optional rule, a ranged weapon will lose 1d of damage at an **EABA** range difficulty of 15, 18, 21, etc. This only applies to kinetic energy, not to things like payload damage.

Range	Damage	Maximum for:
64-174m	-1d	Pistol
175-499m	-2d	Carbine
500-1399m	-3d	Rifle
1400-3999m	-4d	Heavy rifle
4km-11km	-5d	Hvy. machinegun

EXAMPLE: A legendary marksman takes aim with a 9mm pistol (**EABA** damage of 2d+1) at a target 200m distant. On a hit, the damage is reduced by 2d to 0d+1.

Weapon length - Melee weapons of .3 meter or less in length are considered Short. Those more than .3 meters and up to .6 meters are Medium, those more than .6 meters and up to 2 meters are Long, and anything more than 2 meters is Very Long.

Explosions - The base quantity for explosives in **EABA** is .5 kilogram. To figure the **EABA** damage, convert as for a ranged weapon and halve the result, rounding any fractions down. Explosions are half-lethal damage. Each time you double the quantity of explosive, you add +1d to the effect.

EXAMPLE: A gunpowder bomb (.5kg) at a **3G³** TL of 7 would have a DV of (TL7 x 135J x 500g/40)$^{.5}$ = 109. This would become an **EABA** damage of 6d+1, which is halved to 3d+0. A quantity of 1kg would do 4d+0, and 2kg would do 5d+0.

Fragmentation - **EABA** treats fragmentation as a type of explosion. It generally has fewer dice, but is lethal damage instead of half-lethal. Take the basic **3G³** fragment damage, convert to **EABA** damage and modify by the number of fragments to get the final result.

# of fragments	Modifier
2-7	-2
8-31	-1
32-125	+0
126-500	+1
501-2000	+2
2001+	+1d

This table uses the Size scale from the **EABA Universal Chart** for its results, counting number of fragments instead of meters. Specifically, each time you multiply the number of fragments by 4, the modifier goes up a level.

EXAMPLE: You design a **3G³** grenade which has 2500 fragments and each one has a DV of 25 (roughly a circa 2000CE grenade). The damage per fragment is 2d+2, and you get +1d for the number of fragments, so this counts as a 3d+2 lethal explosion.

EXAMPLE: You design a **3G³** grenade which has 25 fragments and each one has a DV of 30 (roughly a WWII "pineapple" grenade). The damage per fragment is 3d+0, but you lose -1 for the small number of fragments, so the end result is a 2d+2 lethal explosion.

Guidance systems - Inherent tracking bonuses become possible with Atomic Era technology (TL9+). Each +2 in a guidance system gives it either an inherent skill roll of 1d+0, or an addition to the user's skill of +1. Self-guided weapons only get half normal Accuracy for the weapon. User-guided weapons only get half Accuracy as well, and only if the user has at least +0d skill with the weapon (sophisticated weapons are harder to use without training).

A self-guided weapon uses its skill roll to "see" the target each round, and cannot be fired until it makes its first roll (the "lock on"). If it loses target lock and does not regain it on the next roll, it misses. Self-guided and user-guided weapons use their skill roll against a range of one turn's worth of movement on the turn it would hit the target. If it had lock-on on the previous turn, it may use its Accuracy bonus, and get +1 per round of successful "aiming" (up to +3), just as for any other aimed weapon.

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EXAMPLE: A Hellfire missile (TL11) has a guidance bonus of +8. This means as a self-guided weapon it would have a 4d+0 skill and perception roll. Since the missile has a **3G³** speed of about 600 meters per second, it has a base difficulty to hit of about 22 (**EABA** difficulty for a range of 600 meters). However, it also has an Accuracy of 5 and is usually shooting at targets the size of a truck (-4 difficulty), so its usual roll will be in the Difficulty 13 range, plus or minus any situational modifiers. If it were a user-guided weapon, it would give a 1d+1 bonus to the user's skill roll, and have an Accuracy of 5 as well.

For a user-guided weapon that almost always hits on the turn it is fired, or a weapon enhancement that uses guidance rules to provide a "to hit" bonus, the guidance bonus is just counted as a bonus to the user's skill roll. This bonus is halved if the weapon doesn't hit in a single turn.

EXAMPLE: An assassin's "person-seeking" rocket pistol has a +4 sensor bonus on the weapon (not the rocket). This gives a 1d+1 skill bonus when firing at the person the weapon was calibrated for. If the rocket was fired outside of one turn's flight range, it would act as a 0d+2 bonus, and if fired outside two turn's flight range, it would only be a 0d+1 bonus.

AV and BP - AV converts to Armor by counting it as a DV, then adding 1d to the result. This means that all items will have a minimum Armor of 1d+0.

EXAMPLE: An AV of 7 translates to an **EABA** damage of 0d+1, so the Armor of the item is 1d+1.

The BP of the item are handled the same way, except the Hits of the item becomes the result you get from treating each 1d as a roll of 2.

EXAMPLE: An item with 6BP translates to an **EABA** damage of 0d+1, which goes to 1d+1, for a roll of 3 (2 for the 1d, +1 for the remainder), so the item has a Hits of 3.

Reliability - From **3G³**, Class I weapons are Reliable in **EABA**, Class II or III are Unreliable, and Class IV-V are Very Unreliable. Atomic Era or later weapons are counted as one class better (Class II would count as Class I and therefore be listed as Reliable).

Special ammunition - This would tend to alter the performance of armor, making certain kinds less suited to stopping the damage. Armor-piercing would reduce the effectiveness of anything not hardened against it, for instance. This effect is done *instead of* increasing the DV. Some ammunition types designed to do extra trauma may be less able to penetrate armor, and they would be treated in reverse. These *might* have a higher damage, perhaps +1 for hollow-point rounds and +2 for exploding rounds, but armors would be increased in effect by 1d instead of reduced by 1d. Against no armor at all, such rounds would be more effective, but against *any* armor they are less effective.

EXAMPLE: A **3G³** 9mm round has a DV of about 22, for an **EABA** damage of 2d+1. Against a Level II bulletproof vest (2d+1 armor), it will have no effect. An armor-piercing 9mm round (also 2d+1) would reduce the effectiveness of the bulletproof vest to 1d+1, and thus would do 1d+0 damage. A 9mm hollow-point round has a damage of 2d+2. An unarmored target would take 2d+2 damage. One with 1d+0 armor would count it as 2d+0 armor and only take 0d+2 damage as a result. And the 2d+1 bulletproof vest would be counted as 3d+1, so it would still provide complete protection.

Special weapons - The **EABA** technology and weapons list includes "disruptors" at extremely high tech levels (Advanced Era, or TL16-18 in **3G³**). You would design these as laser weapons at the appropriate TL, but subtract 1d from the weapon's final **EABA** damage. Since disruptors ignore everything but the material they are targeted to interact with, they don't need a huge damage to be highly effective. Assume that at TL16, all disruptors are designed to hit a specific substance. At TL17, vehicle mounted ones can be tuned to different materials as needed and handheld ones can be tuned with special field equipment, and by TL18 all disruptors can be tuned more or less at will.

Last note - All the weapons in **EABA v1.0** were designed with **3G³** and converted using these guidelines. An **EABA**-specific weapon design system is under development and when it is ready, all **EABA** weapons will be altered as needed to match these design rules.